# Chapter 8

# **ACTIONS SPEAK TOO: UNCOVERING** POSSIBLE IMPLICIT AND EXPLICIT DISCRIMINATION IN THE EMPLOYMENT INTERVIEW PROCESS

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The employment interview is a social exchange between applicants seeking employment and interviewers gathering information on which to make selection decisions. Both use this encounter to collect information, make judgments, and manage impressions. This interaction holds multiple opportunities for verbal and nonverbal behaviors to be displayed and communicated, some of which may not be perceived as being inclusive of all applicants. In this chapter, we examine issues that focus on possible discrimination in interviews.

A reader may question: why study this area? After all, legislation exists in many countries that protects individuals from employment discrimination. In fact, Myors, Lievens, Schollarert, et al. (2008) found that all 22 countries they examined had some law or directive that outlawed discrimination for members of specified groups. Discrimination claims, lawsuits, and court decisions continue to send the message that formal, blatant discrimination will not be tolerated. However, discrimination can and does occur in various forms within the employment interview process. Discrimination in the interview may be manifested in formal, overt ways such as in differential evaluations of applicants' interview performances and subsequent hiring decisions based on group membership, or it may be manifested in more subtle ways.

The modern view of discrimination focuses on nonverbal, paralinguistic and, sometimes, verbal behaviors that occur in social interactions with stigmatized persons (Dovidio & Gaertner, 2000; Hebl, Foster, Mannix, et al., 2002). Stigmatized persons are those who are perceived to possess attributes that are seen as undesirable and distinct from others (Goffman, 1963). Thus, if interviewers react to and treat stigmatized individuals differently than non-stigmatized persons during the interview, even unconsciously, the result is that interviewers obtain less accurate and fair applicant information – thus compromising the quality of their hiring decisions. While interpersonal discrimination may not always constitute illegal discrimination under some of the present legal language, legal scholars have taken note of these more subtle forms of discrimination and their potential to impact legal standards and precedent (e.g., Banks & Ford, 2009; Bartlett, 2009; Lee, 2005; Mitchell & Tetlock, 2006; Ware, 2007–2008). Consider three recent examples of legal cases specific to the interview:

A male academic has won a sex discrimination case against the University of Surrey... Dr. Gilbert was rejected for the job after an interview with Professor Ogden and the associate dean for learning and teaching... The pair said that Dr. Gilbert had performed poorly at the interview and that Professor Ogden had found him 'arrogant and annoying'. But the tribunal said Professor Ogden could provide no evidence of her assertion. It also drew an 'adverse inference' from the fact that the two professors did not take notes during the interview. (Newman, 10 December 2009)

The Equal Employment Opportunity Commission of the USA alleges that Orkin's agent asked Kokezas his age, then cut the interview short after learning Kokezas was 51. (EEOC Press Release, 20 May 2010)

A woman who said she was turned down for a shop assistant's job because she was expecting her second child has won her sex discrimination case. Ms. Tobin said that during an interview she told Mr. Majid she wanted a temporary post because she was pregnant. She claimed his demeanor and manner changed, he appeared annoyed, became very blunt and said 'no'. The tribunal accepted that Mr. Majid told Ms. Tobin he was not prepared to employ her when she told him she was pregnant and that her pregnancy was the reason why he did not want to employ her. (Story from BBC News, 5 November 2007)

Given these incidences of interviewer behaviors, we concur with many organizational researchers that future research needs to integrate the subtle forms of discrimination with research on overt discrimination (Dipboye & Colella, 2005). Therefore, we focus this chapter on how both overt and interpersonal components of employment discrimination can occur in the interview. Researchers have investigated interviewers' judgments of applicants of different demographics, with disabilities, or those who are pregnant, overweight, Lesbian Gay Bisexual Transgender (LGBT), or stigmatized in other ways. In this chapter we highlight recent research publications on these topics (as previous reviews have summarized earlier work, e.g., Arvey & Campion, 1982; Harris, 1989; Macan, 2009; Posthuma, Morgeson, & Campion, 2002; Schmitt, 1976). We also endeavor to expand thinking by connecting the implicit attitude research into the interview process. Within this conceptual framework, we present many ideas for future research (Table 8.1). We aim to share with the reader the following information:

- 1. What we know about these interviewer–interviewee dynamics for protected and stigmatized applicants in the interview;
- 2. What research findings suggest we can do to reduce biases; and

 Table 8.1
 Suggested areas for future research on implicit cognition and the employment interview

<b>Pre-interview Phase</b>	
Résumé screening	Does removing identifying information from résumés decrease
	adverse impact in interview invitations?
Intergroup forecasting error	What effect does the intergroup forecasting error have in interview settings?
	Can interventions making similarities salient decrease the
	intergroup forecasting error for interviewers?
	Can mental imagery reduce discrimination at the pre-interview and interview phases?
Stereotype threat	How can organizations decrease interviewer stereotype threat and its effects?
	Could diversity framing and diversity climate efforts have the ironic effect of inducing interviewer stereotype threat?
Interview Phase	
Behavioral processes	How can automatic avoidance behaviors and assimilation be prevented in order to reduce self-fulfilling prophesies in the interview?
Perceptual processes	How do interviewer individual differences (e.g., prejudice level)
	affect the allocation of attention, memory, and attributions for stereotypical and counter-stereotypical individuating information?
	What effects do various note taking strategies and rating forms
	(e.g., subjective/objective) have on subgroup differences in interviews?
	To what extent do motivated interviewers attempt to mentally correct for potential biases in their ratings of stigmatized group members? Are their corrections accurate, or do they over- or under-correct? What are the effects of cognitive load?
	What are the effects of interviewer attempts to suppress stereotypes during the interview under low and high cognitive load? Are subsequent interviews affected by stereotype rebound?
Post-interview Phase	ioual rice succequent interviews uncoted by stereotype recounse.
Ratings – shifting standards	Do adverse impact effect sizes differ on subjective vs. objective
and status characteristics	rating forms? On ratings of minimum standards (e.g., cut-off selection model) versus competence assessment (e.g., compensatory model)?
Selection and constructed criteria	How do decision makers construct criteria to favor the preferred applicant(s)? How can constructed criteria bias be avoided (e.g., actuarial model, pre-commitment to information weights)?
All Phases	
Individual differences and motivation	What interviewer individual differences and motivations are associated with greater degrees of bias? Can such individual differences and motivations be trained?
Accountability	What are the effects of interventions designed to increase interviewer accountability in decision making?
Context	How can organizational context (e.g., diversity climate, physical environment) be leveraged to minimize biases in interviews?
Training	How can training programs for interviewers be designed to minimize/change implicit cognition in order to reduce bias? How do individuals react to such change attempts?

3. Where we believe researchers need to focus their efforts in order to create a more inclusive workforce.

This chapter serves two main aims. First in the first section, we review recent research demonstrating that discrimination can and does occur in the job interview. Secondly, we provide an overview of research on implicit cognition which we believe may be relevant to discrimination in the interview context in the hope of providing directions for future research on diversity and inclusion in the job interview process.

We believe this focus on the employment interview is imperative. As one of the most frequently used techniques for selecting applicants, it is unusual that an individual is hired without an interview. It appears employers want to meet individuals face-to-face or speak with them before extending an offer of hire. We suspect that when other selection techniques may be waived because of cost cutting, scheduling issues, or reasonable accommodation challenges, the employment interview remains as a selection tool. If this occurs, organizations may be weighting the employment interview more than other sources of information in reaching a final hiring decision.

Furthermore, we argue that structured interviews may not necessarily be immune to interviewer biases. A structured interview can take many forms and there is much variability among researchers when using the term "structured" to describe the interview. Quantitative and qualitative reviews of employment interview research have concluded that adding structure to the interview process can enhance the reliability and validity of interviewer evaluations without the adverse impact typically found for cognitive ability tests (e.g., Conway, Jako, & Goodman, 1995; Huffcutt & Arthur, 1994; Huffcutt & Culbertson, 2010; Huffcutt & Woehr, 1999; Posthuma, Morgeson, & Campion, 2002). Several moderators of this relationship, however, have been noted (for a review see Macan, 2009). In addition, despite the evidence showing that structured interviews can be valid predictors of job performance, surveys show that managers, human resource (HR) professionals, and organizations infrequently use them (Huffcutt & Culbertson, 2010; Klehe, 2004; Lievens & De Paepe, 2004; Simola, Taggar, & Smith, 2007; van der Zee, Bakker, & Bakker, 2002). Researchers have struggled with how to encourage organizations to use structured interviews (e.g., Dipboye, 1994, 1997; Lievens & De Paepe, 2004). While it appears the trend is to use some of the structured interview components, maintaining the intended level of standardization of the selection interview can be challenging. When standardization is compromised, it is possible for biases to enter the interview process (McKay & Davis, 2008).

### REVIEW OF EMPLOYMENT INTERVIEW RESEARCH

It is critical to understand how interviewers' judgments are made so we can ensure fair, accurate, and valid evaluations for all. As organizations become

global, we need to consider the interviewer–interviewee dynamics across cultures and countries and their effects on protected and stigmatized groups for which there may be prejudices, stereotypes, preconceived expectations, and even unconscious or implicit attitudes that creep into one's judgments. In this section, we review some of the more recent employment interview research that has examined a number of applicant characteristics protected by laws in most countries (i.e., gender, race, ethnicity, age, disabilities) as well as those covered in only a few of the 22 countries Myors, Lievens, Schollaert, *et al.* (2008) examined (i.e., marital/family status, weight, sexual orientation, political opinion).

## **Applicant Demographics**

Researchers have investigated the effects of a variety of applicant demographics and other characteristics on interviewer judgments for over 40 years. Details of these studies can be found in the major reviews of the interview literature (Arvey & Campion, 1982; Harris, 1989; Macan, 2009; Posthuma, Morgeson, & Campion, 2002; Schmitt, 1976; Wright, 1969). In general, these early studies examined the direct effects of gender, race, or ethnicity; found small and inconsistent effects; and concluded that these demographics are not major factors in interviewers' decisions. However, this conclusion requires re-examination given more recent research.

For example, Roth, Van Iddekinge, Huffcutt, et al. (2002) found "fairly large ethnic group differences" for the use of the interview as an initial screening. They found methodological problems with the effect size estimates used in prior studies as these estimates were calculated using restricted samples (e.g., job applicants who had passed a previous selection test or samples of job incumbents) resulting in standardized ethnic group differences not reflective or directly applicable to the entire referent population of job applicants. Most surprising is that these "differences were observed despite the fact that the interview was structured, with job-related questions based on job analyses, and trained interviewers" (Roth, Van Iddekinge, Huffcutt, et al. (2002: 375).

Additional research also points to the importance of examining the underlying interview processes related to demographics. Contextual factors such as: (i) job status level (e.g., Singer & Sewell, 1989), (ii) job sex-typing (e.g., Raza & Carpenter, 1987) or age-typing (e.g., Perry & Bourhis, 1998), and (iii) the percentage of minorities in the applicant pool (e.g., Cleveland, Festa, & Montgomery, 1988) have been found to have a role in whether less favorable ratings are given for minority candidates. Interviewers' expectations for applicants based on demographics also have affected interviewer ratings (Purkiss, Perrewe, Gillespie, *et al.*, 2006).

Demographic similarity between interviewer and applicant additionally has been considered. Both McCarthy, Van Iddekinge, and Campion (2010) and Sacco, Scheu, Ryan, *et al.* (2003) investigated the effects of actual demographic similarity between interviewer and applicant (i.e., gender and race)

on interviewer ratings and found no evidence of similarity rating effects. The interviewers' *perceived* similarity with the applicant based on both demographics and attitudinal similarity attitudes, however, may influence the interactions during the interview (Posthuma, Morgeson, & Campion, 2002).

Given the steady rise in the number of older employees in the workforce, the effects of applicant age on employment interview processes and outcomes have also been explored (for a review see Morgeson, Reider, Campion, *et al.*, 2008). In general, age stereotypes have been found. The extent to which these stereotypes translate into age discrimination in the employment interview requires further investigation. In general, more evidence of age discrimination in the interview has been demonstrated in laboratory studies than field studies.

# **Applicants with Disabilities**

Researchers have examined the effects of applicant disability on interviewers' judgments across a wide variety of disabilities (e.g., blindness, hearing impairment, HIV-positive, leg amputee, mental illness, paraplegia, schizophrenia, recovering substance abusers, transverse myelitis). Overall, researchers have found that interviewers' ratings and hiring recommendations for applicants with disabilities depend on the type of disability (for reviews see Arvey & Campion, 1982; Macan, 2009; Posthuma, Morgeson, & Campion, 2002).

Applicant disclosure of their disability and discussion of the disability during the interview have received attention. The notion is that applicants who choose to disclose or acknowledge the disability may reduce interviewer uncertainty about the disability and any interviewer tension and discomfort in the interaction. This acknowledgment would serve to directly address the negative stereotypes and control the quality and quantity of information about the disability (Thompson, 1982). Previous research, however, has found mixed results on the ratings of applicants who disclose their disability. For example, Macan and Hayes (1995; Hayes & Macan, 1997) found applicant discussion of some types of disability-related information (e.g., encouraging the interviewer to ask questions about the disability, stating how they would perform the job) was favorably related to how well the interviewer evaluated the interview performance. However, Herold (2000) showed applicants who disclosed received lower ratings than those who did not disclose. Other research findings suggest possible moderators between applicant disability and interviewer ratings such as whether interviewers perceive applicants as responsible for the disability (Hebl & Kleck, 2002), the nature of the disability (e.g., physical or mental; Dalgin & Bellini, 2008), whether the disability is obvious or not, the level of applicant qualifications (for a review see Posthuma, Morgeson, & Campion, 2002), and when during the interview session (early, later) the disability is discussed (Hebl & Skorinko, 2005; Roberts & Macan, 2006).

Research has also begun to examine the effects of imposing structure to the interview in the types of questions asked (e.g., job-related situational and behavioral) and use of behaviorally anchored rating scales on interviewer evaluations of applicants with disabilities. Results are mixed, with one study reporting no significant difference in hiring ratings for applicants with and without disabilities in the structured interview condition (Brecher, Bragger, & Kutcher, 2006) and the other finding differences among the types of disabilities on recommendation-for-hire scores but also some support for using behavioral anchors on a total interview score (Reilly, Bocketti, Maser, *et al.*, 2006). However, each study chose different types of applicant disabilities, making comparisons difficult.

Researchers have examined a number of different disabilities. Despite the benefit to such breadth, one result of different choices of disabilities is that it is challenging to compare across studies and establish a theoretical rationale for differences found. Stone and Colella (1996) identified a number of elements that distinguish disabilities and can determine how a person with a disability is judged (e.g., physical, psychological, or sensory; concealable; disruptiveness; or origin (i.e., cause)). Researchers need to consider these particular dimensions and articulate them in their work. At times, previous research has confounded the visible–nonvisible aspect with general disability type (i.e., physical/visible disabilities have been compared with mental/nonvisible disabilities). A more systematic framework would advance our understanding of the underlying processes influencing discrimination towards applicants with disabilities in employment interviews and lead to more effective practical recommendations for interviewers and applicants.

# **Pregnant and Working Mother Applicants**

In a survey of over 1000 pregnant women and new mothers by the UK's Equal Opportunities Commission, it was found that almost half reported experiencing discrimination at work (Payne, 2006). The number of pregnancy discrimination claims in the USA continues to climb, with a 33% increase from 2000 to 2009 (EEOC, 2010). A few studies have begun to examine the effects of applicant pregnancy on interviewer decision making and have found less favorable interviewer hiring ratings when the female applicant was presented pregnant (wearing a pregnancy prosthesis) compared with when she provided the identical interview performance (using videos) but was shown not pregnant (Bragger, Kutcher, Morgan, et al., 2002; Cunningham & Macan, 2007).

Interviewer concerns about the pregnant applicant needing time off, missing work, and quitting may provide some explanation for the differences (Cunningham & Macan, 2007). Important for the job interview interaction, Hebl, King, Glick, *et al.* (2007) found that women posing as applicants asking about job openings experienced more interpersonal discrimination (i.e., were treated in a more hostile manner) when ostensibly pregnant than when not pregnant. Also, working mothers have been perceived to be less competent, less committed to and involved in their work, and less flexible for advancement than

fathers (Correll, Benard, & Paik, 2007; Heilman & Okimoto, 2008; King, 2008). Thus, the majority of current evidence suggests that pregnant women and working mothers may face significant discrimination in hiring contexts. Future research needs to examine the influence of these perceptions within the employment interview process. The effect of applicant discussion of these concerns during the interview on ameliorating interviewers' fears should be explored to ascertain the impact on interviewers' evaluations and decisions.

# Overweight and Obese Applicants

Roehling (1999) provided a comprehensive review of research examining weight-based discrimination in employment from a psychological and US-based legal perspective. Much of the prior work investigating hiring decisions asked participants to review information (e.g., applications, résumés), with weight manipulated through pictures, videos, or written descriptions. Overwhelmingly, overweight or obese applicants in studies typically conducted in the USA, especially those who were female, were recommended for hire significantly less than normal weight applicants (see review by Roehling, 1999). This finding also held in samples from New Zealand (Ding & Stillman, 2005) and Britain (Swami, Chan, Wong, et al., 2008). In fact, a meta-analytic review of weight-related empirical studies showed an effect size of d = -0.70 for hiring outcomes (Rudolph, Wells, Weller, et al., 2009).

We found only a few studies that specifically evaluated applicant weight in an employment interview setting, all of which showed evidence for weight-based biased judgments. In two of the studies, videotaped interviews were used in which normal weight applicants were made to look overweight through clothing, make-up, and/or prostheses. Both studies found that overweight applicants were less likely to be recommended for hire than the equally qualified normal weight applicant (Kutcher & Bragger, 2004; Pingitore, Dugoni, Tindale, et al., 1994). Weight has had a larger effect for women than men (Pingitore, Dugoni, Tindale, et al., 1994) and in general women have reported more experiences of weight-related discrimination than men (Roehling, Roehling, & Pichler, 2007). Evidence, however, suggests that men are stigmatized too (Hebl & Turchin, 2005). Furthermore, evaluations have differed based on the level of interview structure, with a behaviorally based evaluation resulting in no significant difference in ratings but a significant difference between the overweight and normal weight applicants in an unstructured interview (Kutcher & Bragger, 2004). Finkelstein, Demuth, and Sweeney (2007) found no evidence for type of job or applicant race as moderators of weight-based hiring ratings, although there is evidence that people may be more accepting of overweight African-Americans (e.g. Hebl & Heatherton, 1998; Hebl & Turchin, 2005). In addition, no differences in hiring ratings were found by weight for highly qualified applicants, while marginal effects on weight resulted for the moderately qualified applicant.

Acknowledging the stigma in the interview, a strategy that has been shown to sometimes be beneficial for applicants with disabilities, was not necessarily found to be advantageous for obese individuals. In fact, a better strategy for obese individuals was to say nothing about the condition, unless the information revealed that the applicant was not directly responsible for the disability (e.g., "has a thyroid condition"; Hebl & Kleck, 2002).

Given the social interaction aspect of the employment interview, it is important for future research to help us understand what transpires during job interviews for all applicants including those who may be overweight and obese. Previous interview studies have typically used videotaped scripted interviews resulting in uncertainty regarding whether interviewers might react to and treat overweight/obese applicants differently in the interview process. If so, this differential treatment may lead candidates themselves to act differently, in ways that may negatively impact how they are evaluated. Overweight job applicants have been perceived to differ from normal weight applicants on personality traits, although current findings provide no evidence to substantiate these commonly held stereotypes (Roehling, Roehling, & Odland, 2008). Physical attractiveness is another route by which applicant weight may bias interview decisions. Overweight people have been perceived as less attractive, suggesting that some of the bias against people who are overweight could be attributed to biases generally found for less attractive individuals (Rothblum, Miller, & Garbutt, 1988; see also Roehling, 1999, for a model of this and other processes that may lead to weight-based employment discrimination).

# Lesbian Gay Bisexual Transgender Applicants

King and Cortina (2010) noted that LGBT individuals are another group that has been shown to experience discrimination at work. Applying for jobs in the Greek private sector, gay men had a significantly lower chance of obtaining a job interview than heterosexuals for the same job (Drydakis, 2009). While we were not able to locate any studies that examined interviewers' evaluations of LGBT applicants in the employment interview, relevant studies of the job application context point to possible differences in how the interviewer might interact with these applicants.

Hebl, Foster, Mannix, et al. (2002) had confederates acting as job applicants enter stores in a mall to enquire about applying for a job. The stigmatized applicants wore a hat labeled, "Gay and Proud," while the other group wore a "Texan and Proud" hat. No evidence of formal discrimination was found (i.e., the proportion of stigmatized individuals who were told of job openings and given an application was not significantly different from non-stigmatized individuals). However, the stigmatized group experienced more interpersonal discrimination, as store employees tended to shorten the interaction, avoid eye contact, and express more overall negativity compared to the nonstigmatized group. Using this same methodology, Singletary and Hebl (2009)

replicated the findings and demonstrated some evidence that compensatory strategies (i.e., increased positivity, acknowledgment, individuating information) reduced interpersonal discrimination for stigmatized persons. In contrast to visible stigmas, one's sexual orientation can be concealed. Not only would it be important for future research to examine the social interaction elements of the employment interview process for LGBT job candidates who disclose, but also any effects if someone is perceived to be LGBT when in fact they are not.

## **Research Directions Examining Discrimination Issues**

Given the protected status across many countries of a wide range of individuals (Myors, Lievens, Schollaert, et al., 2008), it is important to recognize that researchers are examining a wider variety of groups beyond age, race, and gender. In general, the evidence suggests that discrimination in the employment interview can occur. Further examinations of multiply stigmatized applicants (e.g., gender and obesity as in Pingitore, Dugoni, Tindale, et al., 1994) would be informative to discern whether these additional stigmas have an additive or multiple jeopardy effect (e.g., Landrine, Klonoff, Alcaraz, et al., 1995) or whether one stigma may dominate interviewer evaluations (such as proposed in the ethnic prominence hypothesis; Levin, Sinclair, Veniegas, et al., 2002). It is also important for researchers to examine the effects of interviewer perceived (rather than actual) similarity to applicants (e.g., Garcia, Posthuma, & Colella, 2008).

With some exceptions, much of the work on the effects of various applicant demographics and other characteristics has been conducted with videotaped interviews and in less structured interview situations. Clearly, this work is important, but future research should examine these effects in actual face-to-face interviews with greater degrees of structure (McKay & Davis, 2008) and with a focus on what actually transpires during the interview session. That is, employment interviews could present an opportunity for subtle cues to affect interviewer perceptions, behaviors, and judgments as well as applicants' perceptions and interview performance, even in interviews that include components of structure as we describe next.

# **IMPLICIT BIASES**

Although explicit prejudice and stereotypes have been the focus of much research in our field, we believe that subtle, implicit biases deserve increased attention. While Landy (2008) argued that there is currently no evidence to suggest that implicit (or explicit) biases have any large effect in the field, he further argued that implicit biases are likely to have their largest effects in stranger-to-stranger interactions. The job interview is, in essence, a stranger-to-stranger interaction in which implicit attitudes and stereotypes are likely to

have effects on interviewer behavior, interviewer information processing, and interviewee performance.

To this end, we present an overview of some of this literature, as applicable to the interview process. We begin by briefly discussing the conceptual meaning of implicit cognition. Next, we present an interview process model which we adopt as a framework for discussing effects on the job interview. Finally, we generate some propositions regarding the potential process role that implicit cognition might have in each stage of the job interview and offer suggestions for future research in these areas.

## Implicit/Automatic Attitudes and Cognition

For many years, researchers in social psychology and social cognition have explored the effects of implicit, or automatic, intergroup stereotypes and attitudes. Implicit constructs are rooted in connectionist theory, where concepts are associated in the mind based on learned associations, and in dual process models which propose that human judgments and behavior can be produced by either automatic or controlled processes. While definitions of implicit attitudes vary, there is a growing argument that these "implicit" constructs may not necessarily be unconscious, as some individuals may have awareness of these mental associations (cf. Bargh, 1994; Gawronski, Hofmann, & Wilbur, 2006; Gawronski, LeBel, & Peters, 2007). For this reason, the term "implicit" attitudes may be somewhat of a misnomer, with "automatic" being perhaps a more appropriate term. However, due to the tradition and popularity of the term "implicit," we use the labels "implicit" and "automatic" interchangeably, with the recognition that these constructs may not always be unconscious.

Typically, explicit constructs are assessed via traditional self-report measures such as Likert-type attitudinal scales (e.g., the Modern Racism Scale; McConahay, 1986). Several methods for assessing implicit constructs exist, including response latency measures such as the Implicit Association Test<sup>1</sup> (IAT; Greenwald, McGhee, & Schwartz, 1998), Go/No-Go Association Task (GNAT; Nosek & Banaji, 2001), Evaluative Priming Task (Fazio, Jackson, Dunton, *et al.*, 1995; Fazio, Sanbonmatsu, Powell, *et al.*, 1986), Extrinsic Affective Simon Task (EAST; De Houwer, 2003), and semantic priming paradigms (for reviews see Petty, Fazio, & Briñol, 2008; Wittenbrink & Schwartz, 2007); and nonresponse latency measures such as the Affect Misattribution Procedure (Payne, Cheng, Govorun, *et al.*, 2005) and the Stereotype Explanatory Bias (Sekaquaptewa, Espinoza, Thompson, *et al.*, 2003).

<sup>&</sup>lt;sup>1</sup> The validity of the IAT has been the subject of considerable debate (c.f., Nosek, Greenwald, & Banaji, 2007). However, our review does not focus solely on research using the IAT. We incorporate findings from studies using several implicit measures.

The theoretical and empirical relationships between implicit and explicit attitudes are the subject of debate. Early researchers endorsed the notion that when implicit attitude measures showed racial bias but explicit (i.e., self-report) measures did not, the discrepancy was due to social desirability effects on explicit measures and that the implicit measures reflected respondents' "true" attitudes (e.g., "bona fide pipeline"; Fazio, Jackson, Dunton, et al., 1995). However, as research has progressed, a perspective based in dual process models has gained popularity. This perspective states that implicit and explicit attitudes may be two separate (but related) constructs, each with differential validity for predicting different types of outcomes. For example, the Associative-Propositional Evaluation Model (APE; Gawronski & Bodenhausen, 2006) suggests that implicit attitudes operate purely via associative processes and are independent of the individual's values or perceived truth. Thus, implicit attitudes may affect the individual's behavior regardless of whether or not the individual believes the attitude to be "true" or "correct." In contrast, the APE model suggests that explicit attitudes operate via propositional processes in which the attitude is subjected to truth values ("true" or "false") and will be endorsed only when the individual believes the attitude to be true.

## **Empirical Evidence**

Empirically, there seems to be some support for each perspective. Supporting the "social desirability" hypothesis, research has found that implicit and explicit attitudes correlate more strongly in non-socially sensitive domains than in sensitive domains such as racial attitudes (cf. Greenwald, Poehlman, Uhlmann, et al., 2009; Nosek, 2005), while other research has reached different conclusions (Hofmann, Gawronski, Gschwendner, et al., 2005). Greenwald, Poehlman, Uhlmann, et al.'s finding suggests that social desirability may have a role in the divergence between an individual's implicit and explicit attitudes.

However, supporting the second perspective, it has typically been found that implicit attitudes are better predictors of spontaneous and difficult-to-control behaviors, such as nonverbal behaviors and biased information processing, whereas explicit attitudes are better predictors of deliberate and verbal behaviors (Asendorpf, Banse, & Mücke, 2002; Dovidio, Kawakami, & Gaertner, 2002; Dovidio, Kawakami, Johnson, et al., 1997; Hofmann, Rauch, & Gawronski, 2007; Hugenberg & Bodenhausen, 2003, 2004; Neumann, Hülsenbeck, & Seibt, 2004). Also, some studies have found that specific manipulations produced changes in explicit, but not implicit, attitudes (e.g., Gawronski & Strack, 2004), whereas other manipulations have produced changes in implicit, but not explicit, attitudes (e.g., Dasgupta & Greenwald, 2001; Karpinski & Hilton, 2001; Olson & Fazio, 2006), suggesting that these types of attitudes are separate constructs.

Consistent with dual process models, implicit attitudes are thought to control behavior when the individual is under high cognitive load, whereas when

under low load conditions, explicit attitudes can control behavior if the individual possesses sufficient motivation to override the automatic effects (e.g., Fazio & Towles-Schwen, 1999). These results have been bolstered by a neuroimaging study finding that different brain areas are associated with processing of ingroup and outgroup faces under conditions associated with automatic and controlled processing (Cunningham, Johnson, Raye, et al., 2004). The implication of the notion that implicit and explicit processes are related but distinct is that by turning a lens on the role of implicit cognition we may gain information about interview processes that cannot be obtained via traditional explicit measures.

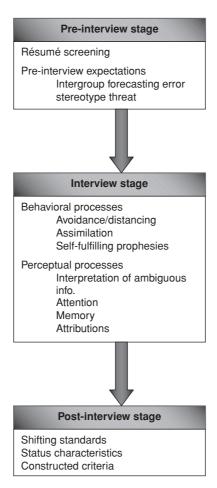
Researchers in industrial/organizational (I/O) psychology have begun to take note of the implicit cognition research. A study examining the role of implicit prejudice in simulated hiring decisions (Ziegert & Hanges, 2005), a discussion of potential uses of implicit measures in organizational research (Haines & Sumner, 2006), and a spirited debate on the applicability of implicit cognition research to I/O (Landy, 2008) have appeared in top I/O journals. We believe that much of the implicit cognition research does have potential to be applied to workplace settings, particularly in the domain of job interviews. In fact, these implicit processes may affect various stages of the interview process.

## INTERVIEW PROCESS MODEL

Dipboye and Macan's (1988) interview process model provides an organizing framework in which to examine the various paths through which potential biases may enter the interview process, even for interviews that are structured. According to the model, there are three phases to the interview process: preinterview, interview, and post-interview (Figure 8.1). The relationships among both behavioral and cognitive events that occur between the interviewer and interviewee are delineated within each phase of the model.

With regard to the pre-interview phase, Dipboye and Macan posit that interviewers hold notions of the ideal applicant for the job based on a variety of information including job-relevant knowledge and skills as well as stereotypical attributes that interviewers believe are important for success on the job. Even before interviewers meet the applicants, they typically have access to information about them and tend to make judgments of the applicants' fit to the ideal candidate based on materials available (e.g., résumés, applications, test scores, letters of recommendation, social networking profiles). That is, interviewers form pre-interview impressions of applicants, which may shape their expectations for interviewee performance and affect subsequent information processing and behavior.

The interview phase encompasses the actual social interaction that takes place, frequently conducted face-to-face but also possibly remotely with video-conference technology (e.g., Chapman, Uggerslev, & Webster, 2003; Straus,



**Figure 8.1** Interview process model and implicit processes entering at each stage.

Miles, & Levesque, 2001). Dipboye and Macan (1988) propose that interviewers' pre-interview impressions can influence both their cognitive processing of information and their behaviors during this exchange. One example is that the questions interviewers choose to ask may be related to how qualified they think the applicant is for the job based on their pre-interview impression (Macan & Dipboye, 1988). If a structured interview is used in which job-related questions are provided to the interviewer, questions may be standardized across applicants. However, even in this case, interviewer paralinguistic and nonverbal behaviors may affect the interaction. For example, how interviewers ask the question (i.e., their intonation, expressed interest); which follow-up questions are used and to what extent; and what their nonverbals communicate to the applicants may differ across applicants. In turn, applicants may be able to

detect interviewers' attitudes regarding their qualifications from these behaviors, and this could affect applicants' interview performances. Applicants who believe the interviewer sees them in a favorable light may feel encouraged, less anxious, and better able to answer the interview questions. If not viewed favorably, applicants may experience increased anxiety (McCarthy & Goffin, 2004; Sieverding, 2009) and find it extremely challenging to provide answers that overcome this negativity and leave the interviewer with a positive impression. Dipboye and Macan (1988) suggest pre-interview impressions can affect the interviewers' level of attention and what information they recognize about the applicant, even in unconscious ways. Interviewers' pre-interview impressions can also influence what information they recall from the interview and also how that recalled information is interpreted and causally attributed (Macan & Dipboye, 1994).

In the post-interview stage, interviewers make decisions about the applicants (e.g., hire/not hire, invite for another interview, site visit, further testing). Interviewers are expected to integrate the information they gathered during these first two phases to form these decisions. Interviewers tend to form a general impression of how well the applicant performed in the interview based on their verbal and nonverbal behaviors. While this overall evaluation may not be formally rated (depending on whether it is a dimension on a structured rating form), it can still influence interviewers' ratings (similar to how contextual performance has been found to affect supervisors' overall performance ratings; e.g., Motowidlo & Van Scotter, 1994).

In the remainder of the chapter, we present research we believe to be highly relevant to how implicit attitudes can enter at each of these stages. Although much of this work has focused on racial issues, we believe it could apply to all protected classes, as well as all stigmatized individuals. Therefore, our hope is to inspire research on applied implicit cognition, including studies of effects in field settings and intervention studies designed to reduce workplace prejudice and discrimination across all subgroups of individuals within the interview process. Our overview of this research is necessarily broad rather than deep. However, by introducing some of the seminal and/or recent research in each topic area below, our goal is to spark interest and creativity in extending research on these topics to the interview setting.

#### **Pre-Interview Phase**

#### Résumé screening

Bias may enter the selection system at the pre-interview phase. One type of study focused on this issue is the "résumé audit," in which résumés are sent to employers in response to actual job ads (e.g., Banerjee, Bertrand, Datta, *et al.*, 2009; Bendick, Jackson, & Romero, 1997; Galgano, 2009; Neumark, Bank, & Van Nort, 1996). The quality and content of these résumés are typically

controlled, with only group membership varying, and the dependent variable is rate of callbacks for interviews for the members of different subgroups.

In one of the most widely cited of these studies, Bertrand and Mullainathan (2004) sent equivalently qualified résumés to job ads posted in Boston and Chicago and, on these résumés, manipulated the names to sound either European-American (e.g., Jill, Brett) or African-American (e.g., Ebony, Tyrone). They found that résumés with White-sounding names received 50% more interview callbacks than résumés with Black-sounding names and calculated that having a White-sounding name was as beneficial as having an additional 8 years of work experience. Furthermore, they provided evidence that this difference was not attenuated by higher quality résumés (in fact, the difference in callback rate was even larger with higher quality résumés) and that the difference did not seem to be caused by perceived socio-economic status differences or by differential familiarity with the names. Laboratory studies have also found bias based on the implied ethnicity of applicants' names on résumés, particularly depending on job status (King, Madera, Hebl, et al., 2006). Given the evidence, one might conclude that bias affected the callback rates for these fictitious applicants; however, whether that bias operated at an implicit or explicit level was not assessed.

A follow-up study by Rooth (2007) assessed implicit and explicit bias in the résumé screening process. Using a procedure similar to that of Bertrand and Mullainathan, Rooth found that in response to Swedish job ads, résumés with Swedish-sounding names received 50% more callbacks than résumés with Arab/Muslim-sounding names. Following the callback period, Rooth contacted the hiring managers who had actually made the callback decisions and asked them to take a Swedish–Muslim IAT and measures of explicit preference for hiring Swedish and Arab/Muslim workers. Although the hiring managers were willing to report explicit preferences for Swedish applicants, these preferences were not significantly associated with callback rates. However, the IAT scores did significantly predict callback rates for résumés with Arab/Muslim sounding names, suggesting that implicit (but not explicit) stereotypes and attitudes may drive discrimination at the résumé screening stage.

Given these findings, and the fact that implicit attitudes are difficult to control consciously, the ideal solution for organizations may be to prevent implicit processes from operating at the résumé screening stage by removing identifying information from the résumé prior to screening. For example, an automated résumé screening system might be used, or an administrative assistant might remove names, e-mails, and addresses from the résumés, replacing them with an identifying code. The hiring manager could then screen the résumés and select résumés for callbacks free of contamination from names and other information that might identify members of protected groups, and applicants could be contacted by individuals other than those who will be conducting the interviews. Removing group-identifying information from résumés should prevent

implicit stereotypes and prejudices from being activated and from influencing the résumé screening process.

A second potential remedy may be to increase accountability for résumé screeners. Ford, Gambino, Lee, et al. (2005) found that telling participants that they would need to justify their résumé screening decisions eliminated racial bias against applicants with Black-sounding names. When no such instructions were provided, racial bias was found. However, for this technique to be effective, organizations must consistently enforce the policy that justification be provided and ensure that the justification provided is free of subtle group-based biases. Furthermore, when group-identifying information is salient to screeners, such as it would be with this strategy, the interviewer's preparations for interviewing the candidate may be affected.

## Preparing to interview

Even when applicants survive the screening process, interviewers may have differential expectations for these applicants when preparing for the interview. Research suggests that preparations to interact with outgroup members are subject to the intergroup forecasting error, in which people have unrealistically negative expectations for intergroup interactions (Mallett, Wilson, & Gilbert, 2008), and people tend to underestimate outgroup members' interest in interacting with them (Shelton & Richeson, 2005). Thus, interviewers might have negative expectations for the quality of an upcoming interview when the interviewee is known to be an outgroup member. This "intergroup forecasting error" seems to stem from a "default" tendency to focus on the ways that outgroup members are different from oneself. In contrast, the "default" tendency when preparing to interact with ingroup members is to focus on similarities (Mallett, Wilson, & Gilbert, 2008). It was found that by inducing participants to focus on the ways that they were similar to outgroup members, participants' expectations for positive intergroup interactions matched their expectations for positive within-group interactions (Mallett, Wilson, & Gilbert, 2008: studies 2 and 3). This suggests that one way to encourage positive expectations for outgroup interviewees might be to encourage interviewers to focus on expectations for similarities.

Another potential technique for reducing the intergroup forecasting error may be the use of mental imagery. Research has found that simply imagining counter-stereotypic individuals (i.e., a strong woman) can reduce stereotyping as measured by several techniques, including the IAT, GNAT, and false memory measures (Blair, Ma, & Lenton, 2001). A program of research examining the effects of imagined positive intergroup contact found that mental simulation of positive intergroup contact resulted in decreased subsequent stereotyping and prejudice, increased projection of positive traits to the outgroup, increased perceived outgroup heterogeneity, and decreased intergroup anxiety (Crisp & Turner, 2009). Those authors propose that imagined intergroup

interaction can substitute for actual intergroup interaction when face-to-face contact with outgroup members is not available (e.g., in highly segregated environments). The benefits of mental imagery on preventing discrimination in the job interview may be a viable avenue for future research on diversity interventions.

Some research has suggested that stereotype threat processes may also affect majority group interviewers preparing to interact with an outgroup candidate, particularly in situations where racial identity is salient – for example, in organizations with a strong diversity focus in selection. Evidence suggests that White Americans and Canadians are aware of the possibility that they are stereotyped as racially prejudiced (e.g., Vorauer, Hunter, Main, et al., 2000; Vorauer, Main, & O'Connell, 1998), and they show stereotype threat effects in this domain (e.g., Frantz, Cuddy, Burnett, et al., 2004). Goff, Steele, and Davies (2008) told White participants that they would be required to discuss either a racially charged topic (racial profiling) or a nonracially charged topic (love and relationships) with a Black partner and assessed their stereotype threat. They found that those who believed they were going to discuss a racially charged topic scored significantly higher on stereotype threat and also generated significantly more stereotype-relevant thoughts (e.g., "My first thought when I saw 'racial profiling' as a topic, and my partner was of a different ethnicity was that I might want to be cognizant of this and be somewhat careful in my remarks"). Furthermore, individuals in this condition significantly physically distanced themselves from their interaction partners. Thus, organizations seeking to communicate the value of diversity to hiring managers representing the majority group may inadvertently frame the interview scenario as racially charged - ironically thereby triggering stereotype threat and physical distancing behavior in interviews. Thus, framing of diversity-related values should be considered carefully, and research focusing on how best to do this is needed.

#### **Interview Phase**

Upon the initial encounter of another person, automatic preferences and stereotypes may activate immediately, effortlessly, uncontrollably, and oftentimes unconsciously. Even if pre-interview expectations have been controlled by the removal of group-identifying information, automatic biases can affect interviewer behavior at this point in time in several ways, including behaviorally and cognitively.

## Behavioral processes

Encountering a member of a negatively stereotyped outgroup tends to automatically prime avoidance behavior. Paladino and Castelli (2008) demonstrated that participants were faster to perform approach behaviors when presented with ingroup members and faster to perform avoidance behaviors when

presented with outgroup members. This effect may lead to distancing behavior during the interview.

A seminal study by Word, Zanna, and Cooper (1974) found that in mock job interviews, White job "interviewers" placed their chairs significantly closer to White "interviewees" than to Black "interviewees," by an average distance of almost 4 inches. In addition, although the interviewers were given the same list of 15 questions to ask each interviewee, and although the interviewees were confederates trained to give equivalent responses to these questions, the interviewers spent 25% less time interviewing Black (9.42 minutes) than White interviewees (12.77 minutes). Thus, it is possible that interviewers may demonstrate avoidance behaviors such as greater interpersonal distance and terminating the interview sooner when interviewing outgroup members than ingroup members – which, in essence, would create differential treatment.

In their second experiment, Word, Zanna, and Cooper trained confederate job interviewers to demonstrate either the immediate or non-immediate behaviors identified in their first study (i.e., in the non-immediate condition, confederates sat farther away than in the immediate condition). Independent coders analyzed videotapes showing only the interviewees to determine whether the interviewer's behavior elicited a self-fulfilling prophecy. Consistent with the self-fulfilling prophecy, participants in the nonimmediate condition placed their chairs significantly farther away from the interviewer than participants in the immediate condition. Importantly, participants in the nonimmediate condition were rated by the independent coders to be significantly less composed and less adequate for the job than participants in the immediate condition. This research highlights the potential importance of standardization of interviewer behavior. Although Word, Zanna, and Cooper (1974) did not specifically measure primed avoidance behavior, the results of their study are consistent with the notion that primed avoidance behavior can affect interviewer behavior and, in turn, affect interviewee performance.

Due to the activation of stereotypes associated with the candidate's group, the interviewer becomes primed to act in accordance with the stereotype (a phenomenon called "assimilation"). Bargh, Chen, and Burrows (1996) primed half of their participants with stereotypes related to the category "elderly," then a hidden experimenter timed participants as they left the lab and walked to the elevator. Participants who were primed with the elderly stereotype walked significantly slower than participants who were not primed, demonstrating behavioral assimilation of the stereotype. In a follow-up study, participants were primed with either the concept of "rude" or "polite." After the priming procedure, they were told to find the experimenter to receive further instructions. When they did so, they found the experimenter deep in conversation with a confederate who feigned confusion about the experimental instructions. Participants primed with the "rude" concept interrupted the

<sup>&</sup>lt;sup>2</sup> Although see Wheeler and Petty (2001) for a review of when contrast effects may instead occur.

conversation significantly faster than participants primed with "polite." This classic experiment and others demonstrate the effect of primed categories and concepts on perceiver behavior. The implication is that an individual who is interviewing an outgroup candidate may behave like the stereotype held of the outgroup, which may then create self-fulfilling prophecies and "confirm" the stereotype.

Automatic stereotype assimilation and automatic avoidance behavior have been demonstrated to create self-fulfilling prophecies in stranger-to-stranger interactions. Chen and Bargh (1997) found that independent coders in the USA blind to experimental condition rated participants who were subliminally primed with African-American faces, and their nonprimed interaction partners, as significantly more hostile than participants who were primed with Caucasian faces and their interaction partners. Importantly, the primed participants themselves also rated their interaction partners as significantly more hostile in the African-American prime condition than in the Caucasian prime condition. Thus, the automatic activation of demographic-based stereotypes may adversely affect the interview performance of minority candidates.

These self-fulfilling prophecies seem to occur outside of the interviewer's awareness. This lack of awareness was demonstrated by Dovidio, Kawakami, and Gaertner (2002) using mock college student interviews in the USA between White interviewers and both White and Black confederate interviewees (who were blind to the experimental hypotheses). The dependent variables of interest were ratings of verbal and nonverbal friendliness toward the Black interviewees, relative to each participant's baseline level of friendliness toward the White interviewees. The authors demonstrated that while Whites' explicit racial attitudes predicted their verbal friendliness toward the Black interviewees, their implicit racial attitudes predicted their nonverbal friendliness as rated by independent coders. Importantly, a disconnect was shown between the perceptions of the interviewers and interviewees. While the interviewers believed that their friendliness was associated with their explicit prejudice scores and verbal behavior, the interviewees' perceptions of interviewer friendliness were significantly associated only with their implicit prejudice and nonverbal behavior. Thus, their study provides an important demonstration of the effects of interviewer implicit attitudes on interviewee perceptions, and how the perceptions of an interviewer and interviewee might differ.

## Perceptual processes

Initial stereotypes and expectations may also affect the interviewer's readiness to perceive stereotypical information, such that the interviewer is primed to interpret ambiguous information as stereotype-consistent. For example, researchers assessed White participants' implicit and explicit racial attitudes and then presented them with computerized White and Black male faces which

transitioned along a continuum from smiling to hostile, passing through ambiguously hostile facial expressions in the middle of the continuum. They found that participants' implicit (but not explicit) racial attitudes predicted the onset and offset of perceived hostility, such that participants with a stronger implicit preference for Whites were quicker to perceive the Black ambiguous faces as hostile, relative to the White faces (Hugenberg & Bodenhausen, 2003). Similar perceptual processes have been empirically demonstrated in other contexts relevant to the interview, including perceiving anger in Arab male faces (Maner, Kenrick, Becker, et al., 2005), anger in male versus female faces (Becker, Kenrick, Neuberg, et al., 2007), and in readiness to perceive an ambiguous target as good or bad (Stapel & Koomen, 2000). Interviewers with more negative implicit attitudes or stronger implicit stereotypes of a group may be biased to perceive stereotypical information in interviews with applicants who are members of the stereotyped groups. In addition, if this process is driven by implicit, and not explicit, attitudes (e.g., as found by Hugenberg & Bodenhausen, 2003), then interventions for preventing this bias will need to utilize levers for adjusting the interviewer's implicit attitudes.

Compounding the issue of readiness to perceive stereotypical information is that perceivers also typically require few pieces of perceived stereotype-consistent information to make stereotype-consistent trait inferences about an individual. Conversely, they require a large number of counter-stereotypic pieces of information in order to make counter-stereotypic trait inferences (Biernat & Ma, 2005). As the job interview takes place, interviewers are tasked with finding out "what kind of person" the applicant is, with the goal of determining what type of employee the applicant would be. Thus, drawing trait inferences about the applicant may be an important component of the interview process. If interviewers are both ready to perceive ambiguous information in stereotypic ways, and if few pieces of evidence are required to "confirm" the interviewers' stereotypical expectations of the applicant, then automatic prejudice may produce expectations that are difficult for stereotyped applicants to overcome.

Automatic activation of stereotypes and prejudice also directs attention. Landy (2008) argued that when counter-stereotypic individuating information is provided in the duration of an interview, the effects of stereotypes will be attenuated. While sometimes correct, research has shown that stereotypes affect how perceivers attend to, remember, and interpret counter-stereotypic information. The ways in which this happens appear complex and could be a fascinating avenue for future research on the job interview process.

Evidence has suggested that when individuals (particularly those high in prejudice) are faced with counter-stereotypic individuating information about an outgroup member, they may either decrease their attention to that information to avoid disconfirming their expectations, or they may increase their attention to the counter-stereotypic information in order to attempt to discredit or discount it. Thus, interviewers faced with counter-stereotypic individuating

information may not adjust their impressions of the applicant in alignment with this information. Research related to these processes is discussed below.

In impression formation tasks, people tend to allocate attention to expectancy-inconsistent information when they are motivated to form accurate impressions and to expectancy-consistent information when they are not (Fiske, Lin, & Neuberg, 1999). This finding suggests that when interviewers are not motivated to form accurate impressions, they will allocate more attention to stereotype-consistent information than to stereotype-inconsistent information and, thus, the stereotypes will be resistant to change.

Furthermore, individuals higher in prejudice often allocate increased attention to stereotype-inconsistent information – but they do so in order to scrutinize it and discount it, thereby preserving their stereotypes. Sherman, Stroessner, Conrey, et al. (2005) found such effects for both implicit (Experiment 3) and explicit (Experiments 1 and 2) prejudice and for social groups including sexual orientation and race. Similar to research presented previously which suggests that people require fewer pieces of stereotype-consistent information to make stereotypical trait inferences, this research suggests that people high in prejudice have a higher threshold for accepting counter-stereotypic than stereotypic information and scrutinize such information carefully. They also found that rather than discounting stereotype-consistent information, low prejudice perceivers incorporated all information into their impressions and formed more accurate perceptions of the target. Thus, organizations may wish to find strategies for reducing prejudice among interviewers or consider taking steps to select interviewers with lower prejudice. However, other evidence suggests that low prejudice persons show information processing biases toward discounting stereotype-consistent information (Wyer, 2004). Research investigating these relationships and extending the findings to applied settings is necessary.

Some research has found effects on memory for preferred and non-preferred candidates' qualifications. In a mock college student selection scenario, raters evidenced memory distortion such that the differences in the preferred and non-preferred candidates' qualifications were exaggerated when racial information was provided (Norton, Vandello, & Darley, 2004). Thus, attempts to ask interviewers to justify their decisions may fall victim to information processing biases.

Individuals may also make differential attributions for stereotype-inconsistent behavior. Sekaquaptewa and colleagues examined individuals' tendency to try to explain stereotype-inconsistent, more so than stereotype consistent, behavior – a phenomenon termed the Stereotype Explanatory Bias (SEB). They found that individuals try to explain counter-stereotypic behavior for members of low status groups more than members of high status groups (Sekaquaptewa & Espinoza, 2004). This tendency is strong enough that it has been successfully used as a measure of racial bias. Sekaquaptewa, Espinoza, Thompson, *et al.* (2003: Study 1) found that in mock interviews with

African-Americans, the interviewers' SEB scores significantly predicted the extent to which they chose stereotypic question forms (e.g., "Some people think they can get away with stealing food, silverware, even cash. Have you ever had any trouble like this?") as opposed to non-stereotypic forms (e.g., "Some people think they can get away with taking work supplies home. Have you ever experienced it, and what did you do about it?"). This study underscores the need for strict interview structure on the questions posed in the interview in order to prevent bias, as well as highlighting the effects of SEB on behavior.

Furthermore, SEB has been found to have differential effects depending on whether the explanations provided for counter-stereotypic behavior made internal or external attributions for the behavior (Sekaquaptewa, Espinoza, Thompson, et al. 2003: Study 2). Participants who made a greater proportion of external attributions for stereotype-inconsistent behaviors ("Shaniqua scored high on the SAT...because she took preparation courses") relative to internal attributions ("Shaniqua scored high on the SAT...because she is smart") received lower social interaction scores from Black, but not White, interaction partners. These results suggest that the attributions an interviewer makes for stereotype-inconsistent individuating information may have an important role not only in information processing and discounting, but in the actual interaction.

The above findings apply to situations in which interviewers are under low cognitive load (Sherman, Stroessner, Conrey, et al., 2005). However, in many cases, interviewers tasked with asking questions, listening to answers, forming impressions, and taking notes may experience significant cognitive load. While Sherman, Stroessner, Conrey, et al.'s high prejudice participants were not able to devote increased attention to stereotype-inconsistent information when under higher load, other studies have found that stereotypes can instead create memory bias under high cognitive load conditions. Several studies have found that stereotype-inconsistent individuating information is recalled less well than consistent information under high load (e.g., Bodenhausen & Lichtenstein, 1987; Macrae, Hewstone, & Griffiths, 1993; Stangor & Duan, 1991; Stangor & McMillan, 1992), suggesting that interviewers under high cognitive load simply may not remember individuating information when making ratings following the interview. This process does, however, differ according to whether "remembering" is defined as free recall or recognition. When under cognitive load and when "remembering" means free recall, memory is indeed stronger for stereotype-consistent information (Sherman & Frost, 2000). In other words, if interviewers under cognitive load are simply asked to recall the interviewees' answers and behaviors, they may be more likely to remember stereotype-consistent information than stereotype-inconsistent information, thereby preserving stereotypes and possibly creating adverse impact in interview ratings. However, when "remembering" is defined as recognition of information that either was or was not present, memory favors stereotypeinconsistent individuating information (Sherman & Frost, 2000). Thus,

organizational researchers may wish to investigate various note-taking strategies, or memory aids using technology (such as recording the interview for later playback), and their effects on group differences in interview ratings. Standardizing the evaluation component of the interview by using behaviorally anchored rating scales or behavioral checklists may also prove beneficial.

## Post-Interview Decision-Making Phase

In the post-interview phase, hiring managers must make decisions about candidates based on interview performance and other information gained during the selection process. As discussed, candidates' interview performance, and the interviewer's attention to and memory of the interview can be influenced by group membership. Thus, by the time this stage in the process is reached, the decision-making process may have already been affected. During the post-decision-making stage there are additional biasing processes that may enter the interview: shifting standards, status characteristics, and constructed criteria.

The shifting standards model describes a process by which stereotypical expectations may bias ratings. The model, proposed by Biernat, Manis, and Nelson (1991) suggests that descriptive scale anchors may acquire different meanings for members of different social groups. This phenomenon has been demonstrated in many domains, including comparisons of men and women on height, weight, income, verbal ability, athleticism, and competence; and comparisons of Blacks and Whites on verbal ability and athletic ability (Biernat, Kobrynowicz, & Weber, 2003; Biernat & Manis, 1994; Biernat, Manis, & Nelson, 1991).

According to the shifting standards model, members of groups with lower expectations (i.e., more negative stereotypes) may receive higher performance ratings on subjective rating scales (e.g., "very good") than objectively equivalent members of groups with higher expectations. This process may obscure discrimination when ratings on subjective response scales are examined. Two applicants of different sub-groups may receive ratings that, on the surface, look equivalent; however, when a decision has to be made between the two, the decision may favor the member of the group with higher expectations, as their latent response scale implies higher objective performance. One such result was found by Cunningham and Macan (2007) in their study of pregnant and non-pregnant applicants. They found no significant mean differences between equally qualified pregnant and nonpregnant applicants on a subjective scale assessing perceived qualifications. However, when the participants were required to decide which of the two applicants would be offered the job, significant hiring discrimination against pregnant applicants was found. Furthermore, it has been found that women, when compared with men, may be more likely to make the "shortlist" for a job opening but less likely to receive the job offer (Biernat & Fuegen, 2001).

Thus, the shifting standards approach may be one explanation for the small effect sizes found by Landy in his meta-analysis of subgroup differences in performance evaluations conducted in field settings (d=0.05–0.10; as cited in Landy, 2008). It has been found that subjective rating scales (e.g., Likert-type scales) mask rating differences amongst ratees because, perhaps unconsciously, raters are placing members of different groups on different rating scales. Importantly, these effects only manifest on subjective (not objective) rating scales (Biernat & Kobrynowicz, 1997), and such effects have been found to intensify as cognitive load increases (Biernat, Kobrynowicz, & Weber, 2003). Thus, organizational researchers should be aware of the potential masking effects of subjective rating scales when examining discrimination effects. Discrimination may occur on both types of scales but may be more identifiable when objective rating scales are used.

Second, the status characteristics model states that members of groups with lower expectations (negatively stereotyped groups) must perform above and beyond the levels required for groups with higher expectations, simply in order to be perceived as equivalent (Foschi, 1992). The notion is that, "unexpected performance elicits a stricter standard, because the judge requires stronger evidence that the performance was due to ability" (Foddy & Smithson, 1989: 76). For example, work products tend to be perceived as higher quality when attributed to men than to women (Swim, Borgida, Maruyama, *et al.*, 1989), women tend to have less influence than men in mixed gender groups (Pugh & Wahrman, 1983), and people tend to believe that men will be more competent than women on novel tasks (Balkwell & Berger, 1996; Heilman & Guzzo, 1978). Thus, in contrast to the shifting standards model, status characteristics theory proposes that equivalently qualified members of low status groups will be rated *lower* relative to members of high status groups.

Biernat and Kobrynowicz (1997) reconciled the seemingly contradictory shifting standards and status characteristics models. They proposed that perceivers set lower standards for low status groups when evaluating minimum-competency levels, but they have higher standards for determining broad ability judgments of low status groups. In two studies using mock applicant screening, they demonstrated that raters required fewer pieces of evidence for minimum standards of competence for women (Study 1) and Blacks (Study 2) relative to men and Whites. However, perceivers required more pieces of evidence to determine high ability for members of these groups. These results suggest that different types of group-based biases may be found depending on whether the selection criterion is a minimum cut-off (shifting standards model) or an assessment of the applicant's ability level (status characteristics model). Importantly, these effects were found only when objective rating scales were used (e.g., few to many examples of skills).

The third form of bias that may enter the post-interview stage relates to a tendency to construct criteria in a way that favors the preferred candidate. This bias may enter when several pieces of information must be combined to form a composite interview score. Despite evidence suggesting that actuarial/statistical models for weighting the various sources of information are more valid than clinical/expert judgment models, considerable resistance to the use of actuarial models persists (cf. Dawes, Faust, & Meehl, 1989). When the clinical model is used and individuals make unstructured decisions regarding how various scores should be weighted, the potential arises for constructed criteria bias to contribute to discrimination against non-preferred candidates, which may be members of stigmatized groups.

Several empirical studies have documented constructed criteria effects. For example, Hodson, Dovidio, and Gaertner (2002) found that for college student admissions decisions, decision makers weighted either the applicant's standardized test scores or high school GPA more heavily depending on which piece of information favored the preferred candidate. When a Black applicant was described as having strong standardized test scores but a moderate high school GPA, decision makers rated high school GPA as more important than standardized test scores. The reverse pattern was seen when the Black applicant was described as having a strong high school GPA but average standardized test scores. No such bias occurred for White applicants. In a different study (Uhlmann & Cohen, 2005: Experiment 1), a similar pattern was found for female applicants for the position of police chief. Furthermore, this process may produce reverse discrimination effects, where the historically disadvantaged applicant may be favored (Norton, Sommers, Vandello, et al., 2006; Norton, Vandello, Biga, et al., 2008; Uhlmann & Cohen, 2005: Experiment 2). This process seems to occur even more strongly when decision makers are held accountable for their decisions (Norton, Vandello, & Darley, 2004). Decision makers showed memory bias favoring the preferred applicant's qualifications (Studies 3 and 4) and showed even stronger rates of choice of the preferred candidate and minimization of race in their explanation of their decision making strategies than decision makers who were not held accountable (Study 5).

One potential remedy for the constructed criteria bias may be to develop a well-validated actuarial model for determining interview scores. In such a model, the weights for various pieces of interview information would be determined empirically, according to their relationships with performance outcomes. Although some organizations may resist such a model, and in this model bias may still enter into the scores for the individual components, this strategy should eliminate the constructed criteria bias in determining interview scores.

A more controversial solution is to have decision makers commit to the relative importance of various pieces of information from the interview in advance. This strategy was found effective by Uhlmann and Cohen (2005: Experiment 3) but ineffective by Norton, Vandello, and Darley, (2004: Study 6). Thus, future research is needed to determine whether committing to the

weights of sources of interview information in advance effectively prevents constructed criterion bias.

## STRATEGIES FOR PREVENTING IMPLICIT BIAS

In this final section, several issues that apply broadly across the stages of the interview process are discussed. Key to this discussion is the distinction between stereotype activation and stereotype application (Gilbert & Hixon, 2001; Kunda & Spencer, 2003). Activation refers to the mental initiation of the stereotypical belief structure or evaluative valence in the perceiver's memory. This activation process was previously thought to be inevitable upon encountering a member of a stigmatized group (however, recent research has called this assumption into question). Application refers to the perceiver's use of the activated mental concepts in making judgments or in forming behavior. Several researchers have noted that application of stereotypes and prejudice may be prevented under the proper conditions – specifically when one is motivated to do so and when one has sufficient cognitive resources to accomplish that goal (e.g., Bodenhausen, Macrae, & Sherman, 1999; Fazio & Towles-Schwen, 1999; Fiske, Lin, & Neuberg, 1999; van Knippenberg, Dijksterhuis, & Vermeulen, 1999). We begin with a discussion of motivational effects on the application and activation of automatic stereotypes and prejudice, followed by a discussion of the effects of cognitive load. Finally, we discuss potential avenues for preventing bias by changing the implicit attitudes and stereotypes themselves.

## Motivational Effects on Stereotypes and Prejudice

Several studies have documented the effects of various motivational states and goals on prevention of the application of automatic stereotypes and prejudice. For example, motivation to control prejudice moderates the association between implicit and explicit measures (e.g., Akrami & Ekehammar, 2005; Dunton & Fazio, 1997; Fazio, Jackson, Dunton, *et al.*, 1995; Gawronski, Geschke, & Banse, 2003; Hofmann, Gschwendener, & Schmitt, 2005; Payne, Cheng, Govorun, *et al.*, 2005), suggesting that when motivated, people can and do prevent the application of implicit bias to their explicit ratings.

Perhaps even more exciting, some research suggests that temporary and chronic motivational states may actually prevent the initial activation of stereotypes and prejudice, therefore by definition preventing their application. Devine, Plant, Amodio, *et al.* (2002) found that stereotype activation and application were minimized when individuals were high in internal motivation to control prejudice and low in external motivation to control prejudice. Activation was measured both on a sequential priming task (Study 1) and IAT (Studies 2 and 3), and application was measured using explicit self-report measures. Particularly important is the notion that this study found that it is

internal (i.e., intrinsic) motivation to control prejudice, rather than external (i.e., socially imposed) motivation, that most effectively prevented activation and application.

Kunda and Spencer (2003) have suggested that three types of motivations affect whether stereotypes will be applied and activated: comprehension, selfenhancement, and the desire to avoid prejudice. Stereotypes will be activated when they are believed to provide information supporting comprehension or understanding of a target, and not activated when they are believed to be irrelevant or distracting. For example, stereotypes may be activated on an impression-formation task (Hoshino-Browne & Kunda, 2000). It is interesting to note that individuals higher in self-perceived objectivity have been found to be particularly likely to act on their stereotypical beliefs in a hiring context (Uhlmann & Cohen, 2007). Self-enhancement motives relate to stereotypic activation in that people may be more likely to stereotype in order to derogate the outgroup when doing so increases their self-image, such as when they have just received negative feedback from an outgroup member (Fein & Spencer, 1997; Sinclair & Kunda, 1999). However, stereotypes will not be activated when doing so prevents the desired self-enhancement, such as when receiving praise from an outgroup member (Sinclair & Kunda, 1999).

In addition, several forms of motivation to avoid prejudice have been found to prevent stereotype activation and application, including chronic egalitarian goals (Moskowitz, Gollwitzer, Wasel, et al., 1999), salience of egalitarian norms (Fein, Hoshino-Brown, Davies, et al., 2003), and intrinsic and extrinsic motivation to control prejudice at both the implicit and explicit levels (e.g., Devine, Plant, Amodio, et al., 2002; Gabriel, Banse, & Hug, 2007; Hausmann & Ryan, 2004). Some research suggests that an organizational culture that promotes a strong climate for diversity and social egalitarian norms can provide extrinsic motivation to control prejudice, whereas a culture of bias can allow it to occur (Ziegert & Hanges, 2005). However, a climate-based intervention may be effective primarily at the stereotype application phase, as other studies have found that external motivation to control prejudice is positively associated with stereotype activation (e.g., Devine, Plant, Amodio, et al., 2002; Hausmann & Ryan, 2004). Research should continue to investigate the effectiveness of interventions designed to increase external (e.g., rewards and punishments) and internal (e.g., persuasion) motivations to control prejudice in organizations.

## **Cognitive Load and Thought Suppression**

The second prerequisite for being able to override automatic attitudes' effects on evaluations and behavior is availability of cognitive resources (Fazio, 1990; Fazio & Towles-Schwen, 1999; Schuette & Fazio, 1995). When under heavy cognitive load, such as when required to perform under time pressure, high stress, or multitasking conditions, even motivated perceivers will likely be

unable to control the effects of automatic constructs. Of course, if the individual's level of automatic bias is already low, the cognitive load will have few effects (Gonsalkorale, von Hippel, Sherman, et al., 2009).

Although cognitive load is often thought to increase the effects of stereotypes on judgment and behavior, this is not always the case. In fact, Gilbert and Hixon (1991) found that perceivers were unable to activate stereotypes when under sufficiently high cognitive load. Even if stereotypes do become activated, motivated perceivers with available cognitive resources attempt to correct their judgments for the degree and direction of bias they believe occurred – however, this process depends on both motivation and availability of resources (Wegener & Petty, 1995). Furthermore, it is important for research to examine whether these corrections are accurate, or whether they might result in undercorrection or overcorrection for perceived bias.

Incorporating elements of diversity issues in interviewer training programs to raise awareness of automatic stereotypes and prejudice may be beneficial. If interviewers become aware of the possibility that automatic processes might bias their judgment, they would be more likely to suppress stereotypes and prejudice and arrive at unbiased conclusions. However, under cognitive load, such attempts to suppress prejudice have been shown to have ironic effects (for a review see Wenzlaff & Wegner, 2000). Following suppression attempts, stereotypes have been shown to "rebound," arising with even greater insistence than if no suppression attempt had been made (Macrae, Bodenhausen, & Milne, 1998; Macrae, Bodenhausen, Milne, et al., 1994). This suggests that in a job interview context, a motivated interviewer with available cognitive resources may be able to suppress stereotypical thinking about an interviewee. However, as resources fade or after the interview concludes, these stereotypes may rebound, affecting subsequent interviews or interactions with other employees or how the interviewee is later viewed. This is particularly likely to occur when the perceiver is under cognitive load (Wegner, 1994, 1997).

Further compounding the problem of stereotype suppression, research has shown that intergroup interactions are cognitively demanding, with cognitive resources and self-regulatory capacity being depleted following the interaction, particularly for those higher in implicit prejudice (Richeson & Shelton, 2003). Corroborating this result, neuroimaging research has found that more implicitly prejudiced people (as measured by an IAT) show more active executive function during interracial interaction and greater cognitive resource depletion following that interaction than do less implicitly prejudiced people (Richeson, Baird, Gordon, *et al.*, 2003). Therefore, those individuals who are most prejudiced and most in need of ability to suppress stereotypical and prejudiced thoughts during intergroup interactions may be those for whom suppression is most difficult. Future research should examine both person and situation effects on interviewer cognitive load, suppression, and interview outcomes in order to determine effective organizational interventions.

# **Changing Implicit Attitudes and Stereotypes**

Although several researchers have contended that implicit constructs are old, highly stable, and resistant to change (e.g., Connor & Feldman-Barrett, 2005; DeHart, Pelham, & Tennen, 2006; Gregg, Seibt, & Banaji, 2006; Jordan, Spencer, Zanna, et al., 2003; Petty, Tormala, Briñol, et al., 2006; Rydell & McConnell, 2006; Sinclair, Dunn, & Lowery, 2005; Wilson, Lindsey, & Schooler, 2000), these assumptions have been recently questioned (e.g., Blair, 2002; Gawronski, Deutsch, Mbirkou, et al., 2008; Gawronski, LeBel, & Peters, 2007). Empirical research has shown that implicit attitudes can be flexible, context-dependent, and relatively easily formed and changed through conditioning processes.

Several studies have found that implicit attitudes and stereotypes are contextdependent and can therefore potentially be affected by organizational contextbased interventions. For example, the presence of a Black experimenter was found to decrease prejudice as measured by an IAT (Lowery, Hardin, & Sinclair, 2001). Reminding respondents of well-liked Black exemplars (e.g., Denzel Washington) and disliked White exemplars (e.g., Jeffrey Dahmer) has also been found to reduce implicit prejudice on a race IAT, with similar results found for a manipulation involving age (Dasgupta & Greenwald, 2001). The relative proportion of women in leadership roles in one's environment has also been associated with levels of implicit gender stereotypes (Dasgupta & Asgari, 2004). Using images embedded in various backgrounds as stimuli for an IAT, Wittenbrink, Judd, and Park (2001) found that context mattered, with implicit prejudice lower for images of African-Americans embedded in positive (e.g., family barbeque, church) as opposed to negative (e.g., gang scene, street corner) contexts. In a follow-up study, it was found that not only background context matters, but also the target's social role. A Black individual in a prison context, wearing a prisoner's uniform, was evaluated negatively, but the same individual in the same context but wearing a suit (implying an attorney role) was evaluated positively (Barden, Maddux, Petty, et al., 2004). Thus, several contextual variations may affect automatic evaluations of individuals in organizations. Similarly, it has been found that the relative salience of different social categories affects prejudice (e.g., Kühnen, Schiessl, Bauer, et al., 2001; Mitchell, Nosek, & Banaji, 2003; Pratto & Shih, 2000; Steele & Ambady, 2006). Even inanimate objects (e.g., a briefcase) present in the environment may prime concepts or associations ("material priming"; e.g., Kay, Wheeler, Bargh, et al., 2004).

Another contextual variable that has been found to affect stereotyping and prejudice is one's anticipated role in an upcoming interaction. When expecting to occupy the high status role in an interaction, Whites had more negative IAT scores than when expecting to occupy the low status role (Richeson & Ambady, 2003). However, the pattern for job status with gender was different, such that men had more negative gender attitudes when expecting to occupy

the low status role (Richeson & Ambady, 2001). Increased stereotyping has also been observed under conditions of mortality salience – when the perceiver is thinking about death (Schimel, Simon, Greenberg, *et al.*, 1999), when the perceiver is angry (DeSteno, Dasgupta, Bartlett, *et al.*, 2004), and, in some cases, when the perceiver is in a darker room (Schaller, Park, & Mueller, 2003). An interesting avenue for organizational researchers is to investigate how the interview context may affect primed constructs, category salience, and evaluations of interviewees from various subgroups.

Consistent with the notion that automatic constructs are associative in nature (e.g., Gawronski & Bodenhausen, 2006), several studies have found that such attitudes can be changed using conditioning techniques. Implicit attitudes have been conditioned for previously novel stimuli including Chinese characters (Murphy, Monahan, & Zajonc, 1995) and Pokemon characters (Olson & Fazio, 2001). Researchers have also created a subliminal "mere exposure" effect in which objects that were repeatedly presented subliminally at exposures of only 5 ms were significantly better-liked than other objects (Monahan, Murphy, & Zajonc, 2000). In one study, the evaluative valence of neutral words was significantly changed by repeatedly pairing the words with positive or negative stimuli (De Houwer, Baeyens, & Eelen, 1994).

Conditioning manipulations have also been found to produce significant changes in implicit attitudes toward social groups. Karpinski and Hilton (2001) manipulated implicit attitudes toward the elderly by pairing the concept of elderly with either positive or negative stimuli (and the concept of youth with oppositely valenced stimuli) 200 times. Olson and Fazio (2006) used a similar procedure to successfully manipulate implicit attitudes toward Blacks and found that the effects persisted on a retest 2 days later. Work on supraliminal evaluative conditioning of stimuli suggests that these effects may be quite longlived. Effects have been found to persist for 2 months (Baeyens, Crombez, van den Bergh, et al., 1988) and even 18 months (Levey & Martin, 1975). Although the longevity of manipulations for social groups (which may be affected by outside experiences such as media portrayals) is unknown, conditioning-based interventions may have potential for inspiring training programs designed to combat bias at its source, and we believe that organizational researchers should investigate the potential effectiveness of such interventions.

One such training program is described by Kawakami, Dovidio, Moll, et al. (2000). In this technique, pictures of Black and White individuals were displayed on a computer screen along with either stereotypical or non-stereotypical labels. Participants were instructed to respond "no" to stereotypical labels and "yes" to non-stereotypical labels. The notion is that participants were practicing "unlearning" stereotypical associations. After the training, participants performed better (less stereotypic associations) on subsequent categorization tasks. Control participants showed no change. Importantly, the training effects persisted upon a retest 24 hours later. Subsequent research has identified affirmation of the counter-stereotypic associations, rather than the

negation of stereotypic associations, as the key driver of these effects (Gawronski, Deutsch, Mbirkou, et al., 2007).

In a follow-up study, similar effects were found for the conditioning-type training regarding gender stereotypes in a simulated applicant selection context (Kawakami, Dovidio, & van Kamp, 2005). Participants were significantly more likely to recommend hiring the male than the female across conditions; however, this tendency was significantly reduced following the counter-stereotype conditioning. The authors found that in order for the conditioning manipulation to be effective, participants needed to be unaware that the conditioning training and the selection task were linked. When participants were aware of the link, they identified the potential effects of the training and (when they possessed sufficient cognitive resources to do so), they corrected for those effects in their ratings of the applicants. Thus, while conditioning-based interviewer training may have potential benefits in removing bias from selection systems, it will be important for researchers to examine the reactions of trainees to such manipulations in order to assess the potential for transfer of training to occur.

#### CONCLUSIONS

The employment interview is very popular, not only within organizations as a frequently used selection device, but also among scholars as a topic of research for nearly 100 years. While we have learned much about the interview over the years, the nature of discrimination in the interview process has changed, becoming more subtle and interpersonal. While discrimination based on explicit prejudice persists, the legal system has also begun to note discrimination based on implicit processes and to hold organizations accountable for such discrimination. Moreover, we believe that it is important for organizations to examine any factors that might decrease interview validity and fairness and to strive to be inclusive of all individuals. As such, awareness of the potential biasing role of implicit cognition is likely to spread among business organizations, and those organizations may turn to us, organizational psychologists, for information and potential solutions. Therefore, it is incumbent on us to inform ourselves on the nature, measurement, and operation of implicit cognition in organizations and to conduct applied research focusing on potential interventions. Several studies indicate that implicit attitudes and stereotypes may be quite malleable and subject to intervention-based change. The implication of these findings is that we may be able to identify interventions to reduce or eliminate implicit discrimination at its source, rather than relying solely on the motivation and cognitive capacity of individuals to attempt to suppress the application of automatic cognition. We believe that discovering ways to eliminate implicit bias in the employment interview process is a pressing, timely, and advantageous direction for future research.

Our colleague, Kandola (2009) communicates our sentiments best in his book, *The Value of Difference*:

It seems to me that we're acting like the drunk who lost his house keys in the road, but searched for them only under the streetlamp because that is where the light was. We're looking for fixes for diversity in the places where we happen to have some solutions, rather than venturing into the unlit areas where the problems really lie. To achieve true diversity, we need to look in the dark places: within our own prejudices and habits. We have to face the forces of discrimination which have been driven underground by the early progress of diversity campaigners – and which exist in us all... diversity is being held back by unconscious bias. (Kandola, 2009: 2–3)

We hope that our review inspires others to explore these "unlit" places (and continue work in lit areas) within the employment interview process.

#### REFERENCES

- Akrami, N., & Ekehammar, B. (2005). The association between implicit and explicit prejudice: The moderating role of motivation to control prejudiced reactions. *Scandinavian Journal of Psychology*, **46**(4), 361–6.
- Arvey, R.D., & Campion, J.E. (1982). The employment interview: A summary and review of recent research. *Personnel Psychology*, **35**, 281–322.
- Asendorpf, J.B., Banse, R., & Mücke, D. (2002). Double dissociation between implicit and explicit personality self-concept: The case of shy behavior. *Journal of Personality and Social Psychology*, **83**, 380–93.
- Baeyens, F., Crombez, G., van den Bergh, O., & Eelen, P. (1988). Once in contact always in contact: Evaluative conditioning is resistant to extinction. *Advances in Behavior Research and Therapy*, **10**, 179–99.
- Balkwell, J.W., & Berger, J. (1996). Gender, status, and behavior in task situations. *Social Psychology Quarterly*, **59**, 273–83.
- Banks, R.R., & Ford, R.T. (2009). (How) does unconscious bias matter? Law, politics, and racial inequality. *Emory Law Journal*, **58**, 1053–122.
- Banerjee, A., Bertrand, M., Datta, S., & Mullainathan, S. (2009). Labor market discrimination in Delhi: Evidence from a field experiment. *Journal of Comparative Economics*, 37, 14–27.
- Barden, J., Maddux, W.W., Petty, R.E., & Brewer, M.B. (2004). Contextual moderation of racial bias: The impact of social roles on controlled and automatically activated attitudes. *Journal of Personality and Social Psychology*, **87**, 5–22.
- Bargh, J.A. (1994). The four horsemen of automaticity: Awareness, intention, efficiency, and control in social cognition. In R.S. Wyer Jr. & T.K. Srull (Eds), *Handbook of Social Cognition* (volume 1–2), (pp. 1–40). Hillsdale, NJ: Lawrence Erlbaum.
- Bargh, J.A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology*, 71, 230–44.
- Bartlett, K.T. (2009). Making good on good intentions: The critical role of motivation in reducing implicit workplace discrimination. *Virginia Law Review*, 95, 1893–971.
- BBC News (2007). Mother wins discrimination case. http://news.bbc.co.uk/2/hi/uk\_news/scotland/glasgow\_and\_west/7078880.stm (accessed 21 June 2010).

- Becker, D.V., Kenrick, D.T., Neuberg, S.L., Blackwell, K.C., & Smith, D.M. (2007). The confounded nature of angry men and happy women. *Journal of Personality and Social Psychology*, **92**, 179–90.
- Bendick, M., Jackson, C.W., & Romero, J.H. (1997). Employment discrimination against older workers: An experimental study of hiring practices. *Journal of Aging and Social Policy*, **8**(4), 25–46.
- Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, **94**(4), 991–1013.
- Biernat, M., & Fuegen, K. (2001). Shifting standards and the evaluation of competence: Complexity in gender-based judgment and decision making. *Journal of Social Issues*, 57, 707–24.
- Biernat, M., & Kobrynowicz, D. (1997). Gender- and race-based standards of competence: Lower minimum standards but higher ability standards for devalued groups. *Journal of Personality and Social Psychology*, 72, 544–57.
- Biernat, M., Kobrynowicz, D., & Weber, D.L. (2003). Stereotypes and shifting standards: Some paradoxical effects of cognitive load. *Journal of Applied Social Psychology*, **33**, 2060–79.
- Biernat, M., & Ma, J.E. (2005). Stereotypes and the confirmability of trait concepts. *Personality and Social Psychology Bulletin*, **31**, 483–95.
- Biernat, M., & Manis, M. (1994). Shifting standards and stereotype-based judgments. *Journal of Personality and Social Psychology*, **66**, 5–20.
- Biernat, M., Manis, M., & Nelson, T.E. (1991). Stereotypes and standards of judgment. *Journal of Personality and Social Psychology*, **60**, 485–99.
- Blair, I.V. (2002). The malleability of automatic stereotypes and prejudice. *Personality and Social Psychology Review*, **6**, 242–60.
- Blair, I.V., Ma, J.E., & Lenton, A.P. (2001). Imagining stereotypes away, the moderation of implicit stereotypes through mental imagery. *Journal of Personality and Social Psychology*, **81**, 828–41.
- Bodenhausen, G.V., & Lichtenstein, M. (1987). Social stereotypes and information-processing strategies: The impact of task complexity. *Journal of Personality and Social Psychology*, **52**, 871–80.
- Bodenhausen, G.V., Macrae, C.N., & Sherman, J.S. (1999). On the dialectics of discrimination: Dual processes in social stereotyping. In S. Chaiken & Y. Trope (Eds), *Dual-Process Theories in Social Psychology* (pp. 271–90). New York, NY: Guilford Press.
- Bragger, J.D., Kutcher, E., Morgan, J., & Firth, P. (2002). The effects of the structured interview on reducing biases against pregnant job applicants. Sex Roles, 46, 215–26.
- Brecher, E.D., Bragger, J.D., & Kutcher, E.J. III. (2006). The structured interview: Reducing bias toward job applicants with physical disabilities. *Employee Responsibilities and Rights Journal*, **18**, 155–70.
- Chapman, D.S., Uggerslev, K.L., & Webster, J. (2003). Applicant reactions to face-to-face and technology-mediated interviews: A field investigation. *Journal of Applied Psychology*, **88**, 944–53.
- Chen, M., & Bargh, J.A. (1997). Nonconscious behavior confirmation processes: The self-fulfilling consequences of automatic stereotype activation. *Journal of Experimental Social Psychology*, **33**, 541–60.
- Cleveland, J.N., Festa, R.M., & Montgomery, L. (1988). Applicant pool composition and job perceptions: Impact on decisions regarding an older applicant. *Journal of Vocational Behavior*, **32**, 112–25.
- Conner, T., & Feldman-Barrett, L. (2005). Implicit self-attitudes predict spontaneous affect in daily life. *Emotion*, **5**, 476–88.

- Conway, J.M., Jako, R.A., & Goodman, D.F. (1995). A meta-analysis of interrater and internal consistency reliability of selection interviews. *Journal of Applied Psychology*, **80**, 565–79.
- Correll, S.J., Benard, S., & Paik, I. (2007). Getting a job: Is there a motherhood penalty? *American Journal of Sociology*, **112**, 1297–338.
- Crisp, R.J., & Turner, R.N. (2009). Can imagined interactions produce positive perceptions? Reducing prejudice through simulated social contact. *American Psychologist*, **64**, 231–40.
- Cunningham, J., & Macan, T. (2007). Effects of applicant pregnancy on hiring decisions and interview ratings. Sex Roles, 57, 497–508.
- Cunningham, W.A., Johnson, M.K., Raye, C.L., Gatenby, J.C., Gore, J.C., & Banaji, M.R. (2004). Separable neural components in the processing of black and white faces. *Psychological Science*, **15**, 806–13.
- Dalgin, R.S., & Bellini, J. (2008). Invisible disability disclosure in an employment interview: Impact on employers' hiring decisions and views of employability. *Rehabilitation Counseling Bulletin*, **52**, 6–15.
- Dasgupta, N., & Asgari, S. (2004). Seeing is believing: Exposure to counterstereotypic women leaders and its effect on the malleability of automatic gender stereotyping. *Journal of Experimental Social Psychology*, **40**, 642–58.
- Dasgupta, N., & Greenwald, A.G. (2001). On the malleability of automatic attitudes: Combating automatic prejudice with images of admired and dislikes individuals. *Journal of Personality and Social Psychology*, **81**, 800–14.
- Dawes, R.M., Faust, D., & Meehl, P.E. (1989). Clinical versus actuarial judgment. *Science*, **243**, 1668–74.
- DeHart, T., Pelham, B.W., & Tennen, H. (2006). What lies beneath: Parenting style and implicit self-esteem. *Journal of Experimental Social Psychology*, **42**, 1–17.
- DeHouwer, J. (2003). The extrinsic affective Simon task. *Experimental Psychology*, **50**, 77–85.
- De Houwer, J., Baeyens, F., & Eelen, P. (1994). Verbal evaluative conditioning with undetected US presentations. *Behaviour Research and Therapy*, **32**, 629–33.
- DeSteno, D., Dasgupta, N., Bartlett, M.Y., & Cajdrie, A. (2004). Prejudice from thin air: The effect of emotion on automatic intergroup attitudes. *Psychological Science*, 15, 319–24.
- Devine, P.G., Plant, E.A., Amodio, D.M., Harmon-Jones, E., & Vance, S.L. (2002). The regulation of explicit and implicit race bias: The role of motivations to respond without prejudice. *Journal of Personality and Social Psychology*, **85**, 835–48.
- Ding, V.J., & Stillman, J.A. (2005). An empirical investigation of discrimination against overweight female job applicants in New Zealand. *New Zealand Journal of Psychology*, **34**(3), 139–48.
- Dipboye, R.L. (1994). Structured and unstructured interviews: Beyond the job-fit model. In G. Ferris (Ed.), Frontiers of Industrial and Organizational Psychology: Personnel Selection. San Francisco, CA: Jossey-Bass.
- Dipboye, R.L. (1997). Structured selection interviews: Why do they work? Why are the underutilized? In N. Anderson & P.H. Lodsl (Eds), *International Handbook of Selection and Assessment* (pp. 455–75). New York: John Wiley & Sons.
- Dipboye, R.L., & Colella, A. (Eds). (2005). Discrimination at Work: The Psychological and Organizational Bases. Mahwah, NJ: Lawrence Erlbaum.
- Dipboye, R.L., & Macan, T.M. (1988). A process view of the selection/recruitment interview. In R.S. Schuler, S.A. Youngblood, & V.L. Huber (Eds), Readings in Personnel and Human Resource Management. MN: West Publishing.
- Dovidio, J.F., & Gaertner, S.L. (2000). Aversive racism and selection decisions: 1989 and 1999. *Psychological Science*, **11**, 315–9.

- Dovidio, J.F., Kawakami, K., & Gaertner, S.L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, **82**, 62–8.
- Dovidio, J.F., Kawakami, K., Johnson, C., Johnson, B., & Howard, A. (1997). On the nature of prejudice: Automatic and controlled processes. *Journal of Experimental Social Psychology*, **33**, 510–40.
- Drydakis, N. (2009). Sexual orientation discrimination in the labour market. *Labour Economics*, **16**, 364–72.
- Dunton, B.C., & Fazio, R.H. (1997). An individual difference measure of motivation to control prejudiced reactions. *Personality and Social Psychology Bulletin*, 23, 316–26.
- Equal Employment Opportunity Commission (2010). *Pregnancy Discrimination Charges EEOC and FEPAs Combined: FY 1997-FY 2009*. http://www.eeoc.gov/eeoc/statistics/enforcement/pregnancy.cf (accessed 2 July 2010).
- Equal Employment Opportunity Commission. (2010 Press release) 20 May 2010. Orkin Pest Control sued by EEOC for age and religious discrimination in hiring and advertising. http://www.eeoc.gov/eeoc/newsroom/release/5-20-10a.cfm (accessed 2 July 2010).
- Fazio, R.H. (1990). A practical guide to the use of response latency in social psychological research. In C. Hendrick, & M.S. Clark (Eds), *Research Methods in Personality and Social Psychology* (pp. 74–97). Thousand Oaks, CA: Sage Publications.
- Fazio, R.H., Jackson, J.R., Dunton, B.C., & Williams, C.J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, **69**, 1013–27.
- Fazio, R.H., Sanbonmatsu, D.M., Powell, M.C., & Kardes, F.R. (1986). On the automatic activation of attitudes. *Journal of Personality and Social Psychology*, **50**, 229–38.
- Fazio, R.H., & Towles-Schwen, T. (1999). The MODE model of attitude-behavior processes. In S. Chaiken, & Y. Trope (Eds), *Dual-Process Theories in Social Psychology* (pp. 97–116). NY: Guilford Press.
- Fein, S., Hoshino-Browne, E., Davies, P.G., & Spencer, S.J. (2003). Self-image maintenance goals and sociocultural norms in motivated social perception. In S.J. Spencer, S. Fein, M.P. Zana, & J.M. Olson (Eds), *Motivated Social Perception: The Ontario Symposium* (volume 9), (pp. 21–44). Mahwah, NJ: Lawrence Erlbaum.
- Fein, S., & Spencer, S. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, **73**, 31–44.
- Finkelstein, L.M., Demuth, R.L.F., & Sweeney, D.L. (2007). Bias against overweight job applicants: Further explorations of when and why. *Human Resource Management*, **46**, 203–22.
- Fiske, S.T., Lin, M., & Neuberg, S.L. (1999). The continuum model: Ten years later. In S. Chaiken & Y. Trope (Eds), *Dual-Process Theories in Social Psychology* (pp. 231–54). New York, NY: Guilford Press.
- Foddy, M., & Smithson, M. (1989). Fuzzy sets and double standards: Modeling the process of ability inference. In J. Berger, M. Zelditch, & B. Anderson (Eds), *Sociological Theories in Progress: New Formulations* (pp. 73–99). Newbury Park, CA: Sage.
- Ford, T.E., Gambino, F., Lee, H., Mayo, E., & Ferguson, M.A. (2005). The role of accountability in suppressing managers' pre-interview biases against African-American sales job applicants. *Journal of Personal Selling and Sales Management*, **24**(2), 113–24.
- Foschi, M. (1992). Gender and double standards for competence. In C.L. Ridgeway (Ed.), *Gender, Interaction, and Inequality* (pp. 181–207). New York: Springer-Verlag.
- Frantz, C.M., Cuddy, A.J.C., Burnett, M., Ray, H., & Hart, A. (2004). A threat in the computer: The race Implicit Association Test as a stereotype threat experience. *Personality and Social Psychology Bulletin*, **30**, 1611–24.

- Gabriel, U., Banse, R., & Hug, F. (2007). Predicting private and public helping behavior by implicit attitudes and the motivation to control prejudiced reactions. *British Journal of Social Psychology*, **46**, 365–82.
- Galgano, S.W. (2009). Barriers to reintegration: An audit study of the impact of race and offender status on employment opportunities for women. *Social Thought and Research*, **30**, 21–37.
- Garcia, M.F., Posthuma, R.A., & Colella, A. (2008). Fit perceptions in the employment interview: The role of similarity, liking, and expectations. *Journal of Occupational and Organizational Psychology*, **81**, 173–89.
- Gawronski, B., & Bodenhausen, G.V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin*, **132**, 692–731.
- Gawronski, B., Deutsch, R., Mbirkou, S., Seibt, B., & Strack, F. (2008). When "Just Say No" is not enough: Affirmation versus negation training and the reduction of automatic stereotype activation. Journal of Experimental Social Psychology, 44, 370–7.
- Gawronski, B., Geschke, D., & Banse, R. (2003). Implicit bias in impression formation: Associations influence the construal of individuating information. *European Journal of Social Psychology*, **33**, 573–89.
- Gawronski, B., Hofmann, W., & Wilbur, C.J. (2006). Are "implicit" attitudes unconscious? *Consciousness and Cognition: An International Journal*, **15**, 485–99.
- Gawronski, B., LeBel, E.P., & Peters, K.R. (2007). What do implicit measures tell us?: Scrutinizing the validity of three common assumptions. *Perspectives on Psychological Science*, **2**, 181–93.
- Gawronski, B., & Strack, F. (2004). On the propositional nature of cognitive consistency: Dissonance changes explicit, but not implicit attitudes. *Journal of Experimental Social Psychology*, **40**, 535–42.
- Gilbert, D.T., & Hixon, J.G. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal of Personality and Social Psychology*, **60**, 509–17.
- Gilbert, D.T., & Hixon, J.G. (2001). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal of Personality and Social Psychology*, **60**, 509–17.
- Goff, P.A., Steele, C.M., & Davies, P.G. (2008). The space between us: Stereotype threat and distance in interracial contexts. *Journal of Personality and Social Psychology*, **94**, 91–107.
- Goffman, E. (1963). Stigma: Notes on the Management of Spoiled Identity. Englewood Cliffs, NJ: Prentice Hall.
- Gonsalkorale, K., von Hippel, W., Sherman, J.W., & Klauer, K.C. (2009). Bias and regulation of bias in intergroup interactions: Implicit attitudes toward Muslims and interaction quality. *Journal of Experimental Social Psychology*, **45**, 161–6.
- Greenwald, A.G., McGhee, D.E., & Schwartz, J.L.K. (1998). Measuring individuals differences in implicit cognition: The Implicit Association Test. Journal of Personality and Social Psychology, 74, 1464–80.
- Greenwald, A.G., Poehlman, T.A., Uhlmann, E.L., & Banaji, M.R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, **97**, 17–41.
- Gregg, A.P., Seibt, B., & Banaji, M.R. (2006). Easier done than undone: Asymmetry in the malleability of implicit preferences. *Journal of Personality and Social Psychology*, **90**, 1–20.
- Haines, E.L., & Sumner, K.E. (2006). Implicit measurement of attitudes, stereotypes, and self-concepts in organizations: Teaching old dogmas new tricks. *Organizational Research Methods*, **9**, 536–53.
- Harris, M. (1989). Reconsidering the employment interview: A review of recent literature and suggestions for future research. *Personnel Psychology*, **42**, 691–726.

- Hausmann, L.R.M., & Ryan, C.S. (2004). Effects of external and internal motivation to control prejudice on implicit prejudice: The mediating role of efforts to control prejudiced responses. *Basic and Applied Social Psychology*, **26**, 215–25.
- Hayes, T.L., & Macan, T.H. (1997). Comparison of the factors influencing interviewer hiring decisions for applicants with and those without disabilities. *Journal of Business and Psychology*, **11**, 357–71.
- Hebl, M.R., Foster, J.B., Mannix, L.M., & Dovidio, J.F. (2002). Formal and interpersonal discrimination: A field study of bias toward homosexual applicants. *Personality and Social Psychology Bulletin*, **28**, 815–25.
- Hebl, M.R., & Heatherton, T.F. (1998). The stigma of obesity in women: The difference is black and white. *Personality and Social Psychology Bulletin*, **24**, 417–26.
- Hebl, M.R., King, E.B., Glick, P., Singletary, S.L., & Kazama, S. (2007). Hostile and benevolent reactions toward pregnant women: Complementary interpersonal punishments and rewards that maintain traditional roles. *Journal of Applied Psychology*, **92**, 1499–511.
- Hebl, M.R., & Kleck, R.E. (2002). Acknowledging one's stigma in the interview setting: Effective strategy or liability? *Journal of Applied Social Psychology*, **32**, 223–49.
- Hebl, M.R., & Skorinko, J.L. (2005). Acknowledging one's physical disability in the interview: Does "when" make a difference? *Journal of Applied Social Psychology*, **35**, 2477–92.
- Hebl, M.R., & Turchin, J.M. (2005). The stigma of obesity: What about men? *Basic and Applied Social Psychology*, **27**, 267–75.
- Heilman, M.E., & Guzzo, R.A. (1978). The perceived cause of work success as a mediator of sex discrimination in organizations. *Organizational Behavior and Human Performance*, **21**, 346–57.
- Heilman, M.E., & Okimoto, T.G. (2008). Motherhood: A potential source of bias in employment decisions. *Journal of Applied Psychology*, **93**, 189–98.
- Herold, K.P. (2000). Communication strategies in employment interviews for applicants with disabilities. In D.O. Braithwaite, & T.L. Thompson (Eds), *Handbook of Communication and People with Disabilities: Research and Application* (pp. 159–75). Mahwah, NJ: Lawrence Erlbaum.
- Hodson, G., Dovidio, J.F., & Gaertner, S.L. (2002). Processes in racial discrimination: Differential weighting of conflicting information. *Personality and Social Psychology Bulletin*, **28**, 460–71.
- Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. (2005). A meta-analysis on the correlation between the Implicit Association Test and explicit self-report measures. *Personality and Social Psychology Bulletin*, **31**, 1369–85.
- Hofmann, W., Gschwendner, T., & Schmitt, M. (2005). On implicit-explicit consistency: The moderating role of individual differences in awareness and adjustment. *European Journal of Personality*, **19**, 25–49.
- Hofmann, W., Rauch, W., & Gawronski, B. (2007). And deplete us not into temptation: Automatic attitudes, dietary restraint, and self-regulatory resources as determinants of eating behavior. *Journal of Experimental Social Psychology*, **43**, 497–504.
- Hoshino-Browne, E., & Kunda, Z. (2000). Activation and application processes of Asian stereotypes in realistic interaction. Paper presented at the 108th Annual Convention of the American Psychological Association, Washington, DC.
- Huffcutt, A.I., & Arthur, W. Jr. (1994). Hunter and Hunter (1984) revisited: Interview validity for entry-level jobs. *Journal of Applied Psychology*, **79**, 184–90.
- Huffcutt, A.I., & Culbertson, S.S. (2010). Interviews. In S. Zedeck (Ed.), APA Hand-book of Industrial and Organizational Psychology (volume 2), (pp. 185–203). Washington, DC: American Psychological Association.

- Huffcutt, A.I., & Woehr, D.J. (1999). Further analysis of employment interview validity: A quantitative evaluation of interviewer-related structuring methods. *Journal of Organizational Behavior*, 20, 549–60.
- Hugenberg, K., & Bodenhausen, G.V. (2003). Facing prejudice: Implicit prejudice and the perception of facial threat. *Psychological Science*, **14**, 640–3.
- Hugenberg, K., & Bodenhausen, G.V. (2004). Ambiguity in social categorization: The role of prejudice and facial affect in race categorization. *Psychological Science*, 15, 342–5.
- Jordan, C.H., Spencer, S.J., Zanna, M.P., Hoshino-Browne, E., & Correll, J. (2003). Secure and defensive high self-esteem. *Journal of Personality and Social Psychology*, **85**, 969–78.
- Kandola, B. (2009). The Value of Difference: Eliminating Bias in Organizations. Oxford, UK: Pearn Kandola.
- Karpinski, A., & Hilton, J.L. (2001). Attitudes and the Implicit Association Test. *Journal of Personality and Social Psychology*, **81**, 774–88.
- Kawakami, K., Dovidio, J.F., Moll, J., Hermsen, S., & Russin, A. (2000). Just say no (to stereotyping): Effects of training in the negation of stereotypic associations on stereotype activation. *Journal of Personality and Social Psychology*, **78**, 871–88.
- Kawakami, K., Dovidio, J.F., & van Kamp, S. (2005). Kicking the habit: Effects of nonstereotypic association training and correction processes on hiring decisions. *Journal of Experimental Social Psychology*, **41**, 68–75.
- Kay, A.C., Wheeler, S.C., Bargh, J.A., & Ross, L. (2004). Material priming: The influence of mundane physical objects on situational construal and competitive behavioral choice. *Organizational Behavior and Human Decision Processes*, **95**, 83–96.
- King, E.B. (2008). The effect of bias on the advancement of working mothers: Disentangling legitimate concerns from inaccurate stereotypes as predictors of advancement in academe. *Human Relations*, **61**, 1677–711.
- King, E.B., & Cortina, J.M. (2010). The social and economic imperative of lesbian, gay, bisexual, and transgendered supportive organizational policies. *Industrial and Organizational Psychology*, **3**, 69–78.
- King, E.B., Madera, J.M., Hebl, M.R., Knight, J.L., & Mendoza, S.A. (2006). What's in a name? A multiracial investigation of the role of occupational stereotypes in selection decisions. *Journal of Applied Social Psychology*, **36**, 1145–59.
- Klehe, U. (2004). Choosing how to choose: Institutional pressures affecting the adoption of personnel selection procedures. *International Journal of Selection and Assessment*, 12, 327–42.
- Kühnen, U., Schiessl, M., Bauer, N., Paulig, N., Pöhlmann, C., & Schmidthals, K. (2001). How robust is the IAT? Measuring and manipulating implicit attitudes of East- and West-Germans. *Experimental Psychology*, **48**, 135–44.
- Kunda, Z., & Spencer, S.J. (2003). When do stereotypes come to mind and when do they color judgment? A goal-based theoretical framework for stereotype activation and application. *Psychological Bulletin*, **129**, 522–44.
- Kutcher, E.J., & Bragger, J.D. (2004). Selection interviews of overweight job applicants: Can structure reduce the bias? *Journal of Applied Social Psychology*, **34**, 1993–2022.
- Landrine, H., Klonoff, E.A., Alcaraz, R., Scott, J., & Wilkins, P. (1995). Multiple variables in discrimination. In B. Lott, & D. Maluso (Eds), *The Social Psychology of Interpersonal Discrimination* (pp. 183–224). New York: Guilford Press.
- Landy, F.J. (2008). Stereotypes, bias, and personnel decisions: Strange and stranger. Industrial and Organizational Psychology, 1, 379–92.
- Lee, A.J. (2005). Unconscious bias theory in employment discrimination litigation. Harvard Law Review, 40, 481-6.

- Levey, A.B., & Martin, I. (1975). Classical conditioning of human "evaluative" responses. *Behavior Research and Therapy*, **13**, 221–6.
- Levin, S., Sinclair, S., Veniegas, R.C., & Taylor, P.L. (2002). Perceived discrimination in the context of multiple group membership. *Psychological Science*, **13**, 557–60.
- Lievens, F., & De Paepe, A. (2004). An empirical investigation of interviewer-related factors that discourage the use of high structure interviews. *Journal of Organizational Behavior*, **25**, 29–46.
- Lowery, B.S., Hardin, C.D., & Sinclair, S. (2001). Social influence effects on automatic racial prejudice. *Journal of Personality and Social Psychology*, **81**, 842–55.
- Macan, T. (2009). The employment interview: A review of current studies and directions for future research. *Human Resource Management Review*, **19**, 203–18.
- Macan, T.H., & Dipboye, R.L. (1988). The effects of interviewers' initial impressions on information gathering. Organizational Behavior and Human Decision Processes, 42, 364–87.
- Macan, T.H., & Dipboye, R.L. (1994). The effects of the application on processing of information from the employment interview. *Journal of Applied Social Psychology*, **24**, 1291–314.
- Macan, T.H., & Hayes, T.L. (1995). Both sides of the employment interview interaction: Perceptions of interviews and applicants with disabilities. *Rehabilitation Psychology*, 40, 261–78.
- Macrae, C.N., Bodenhausen, G.V., & Milne, A.B. (1998). Saying no to unwanted thoughts: Self-focus and the regulation of mental life. *Journal of Personality and Social Psychology*, 74, 578–89.
- Macrae, C.N., Bodenhausen, G.V., Milne, A.B., & Jetten, J. (1994). Out of mind but back in sight: Stereotypes on the rebound. *Journal of Personality and Social Psychology*, **67**, 808–17.
- Macrae, C.N., Hewstone, M., & Griffiths, R.J. (1993). Processing load and memory for stereotype-based information. *European Journal of Social Psychology*, **23**, 77–87.
- Mallett, R.K., Wilson, T.D., & Gilbert, D.T. (2008). Expect the unexpected: Failure to anticipate similarities leads to an intergroup forecasting error. *Journal of Personality and Social Psychology*, **94**, 265–77.
- Maner, J.K., Kenrick, D.T., Becker, D.V., Robertson, T.E., Hofer, B., Neuberg, S.L, Schaller, M. (2005). Functional Projection: How fundamental social motives can bias interpersonal perception. *Journal of Personality and Social Psychology*, 88, 63–78.
- McCarthy, J., & Goffin, R. (2004). Measuring job interview anxiety: Beyond weak knees and sweaty palms. *Personnel Psychology*, **57**, 607–37.
- McCarthy, J.M., Van Iddekinge, C.H., & Campion, M.A. (2010). Are highly structured job interviews resistant to demographic similarity effects? *Personnel Psychology*, **63**, 325–59.
- McConahay, J.B. (1986). Modern racism, ambivalence, and the modern racism scale. In J.F. Dovidio, & S.L. Gaertner (Eds), *Prejudice, Discrimination, and Racism* (pp. 91–125). Orlando, FL: Academic Press.
- McKay, P.F., & Davis, J. (2008). Traditional selection methods as resistance to diversity in organizations. In K. Thomas (Ed.), *Diversity Resistance in Organizations* (pp. 151–74). New York: Taylor Francis Group/Lawrence Erlbaum.
- Mitchell, J.P., Nosek, B.A., & Banaji, M.R. (2003). Contextual variations in implicit evaluation. *Journal of Experimental Psychology: General*, **132**, 455–69.
- Mitchell, G., & Tetlock, P.E. (2006). Antidiscrimination law and the perils of mindreading. *Ohio State Law Journal*, **67**, 1023–121.
- Monahan, J.L., Murphy, S.T., & Zajonc, R.B. (2000). Subliminal mere exposure: Specific, general, and diffuse effects. *Psychological Science*, **11**, 462–6.

- Morgeson, F.P., Reider, M.H., Campion, M.A., & Bull, R.A. (2008). Review of research on age discrimination in the employment interview. *Journal of Business and Psychology*, **22**, 223–32.
- Moskowitz, G.B., Gollwitzer, P.M., Wasel, W., & Schaal, B. (1999). Preconscious control of stereotype activation through chronic egalitarian goals. *Journal of Personality and Social Psychology*, 77, 167–84.
- Motowidlo, S.J., & Van Scotter, J.R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, **79**, 475–80.
- Murphy, S.T., Monahan, J.L., & Zajonc, R.B. (1995). Additivity of nonconscious affect: Combined effects of priming and exposure. *Journal of Personality and Social Psychology*, 77, 167–84.
- Myors, B., Lievens, F., Schollaert, E., Van Hoye, G., Cronshaw, S.F., Mladinic, A., et al. (2008). International perspectives on the legal environment for selection. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 1, 206–46.
- Neumann, R., Hulsenbeck, K., & Seibt, B. (2004). Attitudes toward people with AIDS and avoidance behavior: Automatic and reflective bases of behavior. *Journal of Experimental Social Psychology*, 40, 543–50.
- Neumark, D., Bank, R.J., & Van Nort, K.D. (1996). Sex discrimination in restaurant hiring: An audit study. *Quarterly Journal of Economics*, **111**, 915–42.
- Newman, M. (2009). Man wins sex discrimination case in tribunal. *Times Higher Education*. http://www.timeshighereducation.co.uk/story.asp?storycode=409516 (accessed 21 June 2010).
- Norton, M.I., Sommers, S.R., Vandello, J.A., & Darley, J.M. (2006). Mixed motives and racial bias: The impact of legitimate and illegitimate criteria on decision making. *Psychology, Public Policy, and Law*, **12**, 36–55.
- Norton, M.I., Vandello, J.A., Biga, A., & Darley, J.M. (2008). Colorblindness and diversity: Conflicting goals in decisions influenced by race. *Social Cognition*, 26, 102– 11.
- Norton, M.I., Vandello, J.A., & Darley, J.M. (2004). Casuistry and social category bias. *Journal of Personality and Social Psychology*, **87**, 817–31.
- Nosek, B.A. (2005). Moderators of the relationship between implicit and explicit evaluation. *Journal of Experimental Psychology: General*, **134**, 565–84.
- Nosek, B.A., & Banaji, M.R. (2001). The go/no-go association task. *Social Cognition*, **19**, 625–66.
- Nosek, B.A., Greenwald, A.G., & Banaji, M.R. (2007). The Implicit Association Test at age 7: A methodological and conceptual review. In J.A. Bargh (Ed.), *Automatic Processes in Social Thinking and Behavior* (pp. 265-292). Psychology Press.
- Olson, M.A., & Fazio, R.H. (2001). Implicit attitude formation through classical conditioning. *Psychological Science*, **12**, 413–7.
- Olson, M.A., & Fazio, R.H. (2006). Reducing automatically activated racial prejudice through implicit evaluative conditioning. *Personality and Social Psychology Bulletin*, 32, 421–33.
- Paladino, M.P., & Castelli, L. (2008). On the immediate consequences of intergroup categorization: Activation of approach and avoidance motor behavior toward ingroup and outgroup members. *Personality and Social Psychology Bulletin*, **34**, 755–68.
- Payne, J. (2006). Pregnancy Discrimination in the Workplace. European Working Conditions Observatory. http://www.eurofound.europa.eu/ewco/2006/06/UK0606019I. htm (accessed 21 June 2010).
- Payne, B.K., Cheng, C.M., Govorun, O., & Stewart, B.D. (2005). An inkblot for attitudes: Affect misattribution as implicit measurement. *Journal of Personality and Social Psychology*, **89**, 277–93.

- Perry, E.L., & Bourhis, A.C. (1998). A closer look at the role of applicant age in selection decisions. *Journal of Applied Social Psychology*, **28**, 1670–97.
- Petty, R.E., Fazio, R.H., & Briñol, P. (Eds). (2008). Attitudes: Insights from the New Implicit Measures. New York, NY: Psychology Press.
- Petty, R.E., Tormala, Z.L., Briñol, P., & Jarvis, W.B.G. (2006). Implicit ambivalence from attitude change: An exploration of the PAST model. *Journal of Personality and Social Psychology*, **90**, 21–41.
- Pingitore, R., Dugoni, B.L., Tindale, R.S., & Spring, B. (1994). Bias against overweight job applicants in a simulated employment interview. *Journal of Applied Psychology*, **79**, 909–17.
- Posthuma, R.A., Morgeson, F.P., & Campion, M.A. (2002). Beyond employment interview validity: A comprehensive narrative review of recent research and trends over time. *Personnel Psychology*, **55**, 1–81.
- Pratto, F., & Shih, M. (2000). Social dominance orientation and group context in implicit group prejudice. *Psychological Science*, 11, 515–8.
- Pugh, M.D., & Wahrman, R. (1983). Neutralizing sexism in mixed-sex groups. Do women have to be better than men? *American Journal of Sociology*, **88**, 746–62.
- Purkiss, S.L.S., Perrewe, P.L., Gillespie, T.L., Mayes, B.T., & Ferris, G.R. (2006). Implicit sources of bias in employment interview judgments and decisions. *Organizational Behavior and Human Decision Processes*, 101, 152-67.
- Raza, S.M., & Carpenter, B.N. (1987). A model of hiring decisions in real employment interviews. *Journal of Applied Psychology*, **72**, 596–603.
- Reilly, N.P., Bocketti, S.P., Maser, S.A., & Wennet, C.L. (2006). Benchmarks affect perceptions of prior disability in a structured interview. *Journal of Business and Psychology*, **20**, 489–500.
- Richeson, J.A., & Ambady, N. (2001). Who's in charge? Effects of situational roles on automatic gender bias. *Sex Roles*, 44, 493–512.
- Richeson, J.A., & Ambady, N. (2003). Effects of situational power on automatic racial prejudice. *Journal of Experimental Social Psychology*, **39**, 177–83.
- Richeson, J.A., Baird, A.A., Gordon, H.L., Heatherton, T.F., Wyland, C.L., Trawalter, S., & Shelton, J.N. (2003). An fMRI investigation of the impact of interracial contact on executive function. *Nature Neuroscience*, **6**, 1323–8.
- Richeson, J.A., & Shelton, J.N. (2003). When prejudice does not pay: Effects of interracial contact on executive function. *Psychological Science*, **14**, 287–90.
- Roberts, L.L., & Macan, T.H. (2006). Disability disclosure effects on employment interview ratings of applicants with nonvisible disabilities. *Rehabilitation Psychology*, **51**, 239–46.
- Roehling, M.V. (1999). Weight-based discrimination in employment: Psychological and legal aspects. *Psychological and legal aspects*, **52**, 969–1016.
- Roehling, M.V., Roehling, P.V., & Odland, L.M. (2008). Investigating the validity of stereotype about overweight employees: The relationship between body weight and normal personality traits. *Group and Organization Management*, **33**, 392–424.
- Roehling, M.V., Roehling, P.V., & Pichler, S. (2007). The relationship between body weight and perceived weight-related employment discrimination: The role of sex and race. *Journal of Vocational Behavior*, **71**, 300–18.
- Rooth, D.O. (2007). Implicit discrimination in hiring. *IZA Discussion Papers*. http://ssrn.com/abstract=984432
- Roth, P.L., Van Iddekinge, C.H., Huffcutt, A.I., Eidson, C.E. Jr., & Bobko, P. (2002). Corrections for range restrictions in structured interview ethnic group differences: The values may be larger than researchers thought. *Journal of Applied Psychology*, **87**, 369–76.

- Rothblum, E.D., Miller, C.T., & Garbutt, B. (1988). Stereotypes of obese female job applicants. *International Journal of Eating Disorders*, 7, 277–83.
- Rudolph, C.W., Wells, C.A., Weller, M.D., & Baltes, B.B. (2009). A meta-analysis of empirical studies of weight-based bias in the workplace. *Journal of Vocational Behavior*, 74, 1–10.
- Rydell, R.J., & McConnell, A.R. (2006). Understanding implicit and explicit attitude change: A systems of reasoning analysis. *Journal of Personality of Social Psychology*, **91**, 995–1008.
- Sacco, J.M., Scheu, C.R., Ryan, A.M., & Schmitt, N. (2003). An investigation of race and sex similarity effects in interviews: A multilevel approach to relational demography. *Journal of Applied Psychology*, 88, 852–65.
- Schaller, M., Park, J.H., & Mueller, A. (2003). Fear of the dark: Interactive effects of beliefs about danger and ambient darkness on ethnic stereotypes. *Personality and Social Psychology Bulletin*, **29**, 637–49.
- Schimel, J., Simon, L., Greenberg, J., Pyszczynski, T., Solomon, S., Waxmonsky, J., & Arndt, J. (1999). Stereotypes and terror management: Evidence that mortality salience enhances stereotypic thinking and preferences. *Journal of Personality and Social Psychology*, 77, 905–26.
- Schmitt, N. (1976). Social and situational determinants of interview decisions: Implications for the employment interview. *Personnel Psychology*, **29**, 79–101.
- Schuette, R.A., & Fazio, R.H. (1995). Attitude accessibility and motivation as determinants of biased processing: A test of the MODE model. *Personality and Social Psychology Bulletin*, **21**, 704–10.
- Sekaquaptewa, D., & Espinoza, P. (2004). Biased processing of stereotype-incongruency is greater for low than high status groups. *Journal of Experimental Social Psychology*, **40**, 128–35.
- Sekaquaptewa, D., Espinoza, P., Thompson, M., Vargas, P., & von Hippel, W. (2003). Stereotypic explanatory bias: Implicit stereotyping as a predictor of discrimination. *Journal of Experimental Psychology*, **39**, 75–82.
- Shelton, J.N., & Richeson, J.A. (2005). Intergroup contact and pluralistic ignorance. *Journal of Personality and Social Psychology*, **88**, 91–107.
- Sherman, J.W., & Frost, L.A. (2000). On the encoding of stereotype-relevant information under cognitive load. *Personality and Social Psychology Bulletin*, **26**, 26–34.
- Sherman, J.W., Stroessner, S.J., Conrey, F.R., & Azam, O.A. (2005). Prejudice and stereotype maintenance process: Attention, attribution, and individuation. *Journal of Personality and Social Psychology*, **89**, 607–22.
- Sieverding, M. (2009). 'Be cool!': Emotional costs of hiding feelings in a job interview. *International Journal of Selection and Assessment*, 17, 391–401.
- Simola, S.K., Taggar, S., & Smith, G.W. (2007). The employment selection interview: Disparity among research-based recommendations, current practices and what matters to Human Rights Tribunals. *Canadian Journal of Administrative Sciences*, 24, 30–44.
- Sinclair, S., Dunn, E., & Lowery, B.S. (2005). The relationship between parental racial attitudes and children's implicit prejudice. *Journal of Experimental Social Psychology*, **41**, 283–9.
- Sinclair, L., & Kunda, Z. (1999). Reactions to a Black professional: Motivated inhibition and activation of conflicting stereotypes. *Journal of Personality and Social Psychology*, 77, 885–904.
- Singer, M.S., & Sewell, C. (1989). Applicant age and selection interview decisions: Effect of information exposure on age discrimination in personnel selection. *Personnel Psychology*, **42**, 135–54.

- Singletary, S.L., & Hebl, M.R. (2009). Compensatory strategies for reducing interpersonal discrimination: The effectiveness of acknowledgments, increased positivity, and individuating information. *Journal of Applied Psychology*, **94**, 797–805.
- Stangor, C., & Duan, C. (1991). Effects of multiple task demands upon memory for information about social groups. *Journal of Experimental Social Psychology*, 27, 357–78.
- Stangor, C., & McMillan, D. (1992). Memory for expectancy-congruent and expectancy-incongruent information: A review of the social and social developmental literatures. *Psychological Bulletin*, **111**, 42–61.
- Stapel, D.A., & Koomen, W. (2000). How far do we go beyond the information given? The impact of knowledge activation on interpretation and inference. *Journal of Personality and Social Psychology*, **78**, 19–37.
- Steele, J.R., & Ambady, N. (2006). "Math is hard!" The effect of gender priming on women's attitudes. *Journal of Experimental Social Psychology*, **42**, 428–36.
- Stone, D.L., & Colella, A. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *Academy of Management Review*, **21**, 352–401.
- Straus, S.G., Miles, J.A., & Levesque, L.L. (2001). The effects of videoconference, telephone, and face-to-face media on interviewer and applicant judgments in employment interviews. *Journal of Management*, 27, 363–81.
- Swami, V., Chan, F., Wong, V., Furnham, A., & Tovee, M.J. (2008). Weight-based discrimination in occupational hiring and helping behavior. *Journal of Applied Social Psychology*, 38, 968–81.
- Swim, J., Borgida, E., Maruyama, G., & Myers, D.G. (1989). Joan McKay versus John McKay: Do gender stereotypes bias evaluations? *Psychological Bulletin*, 105, 409–29.
- Thompson, T.L. (1982). Disclosure as a disability-management strategy: A review and conclusions. *Communication Quarterly*, **30**, 196–203.
- Uhlmann, E.L., & Cohen, G.L. (2005). Constructed criteria: Redefining merit to justify discrimination. *Psychological Science*, **16**(6), 474–80.
- Uhlmann, E.L., & Cohen, G.L. (2007). "I think it, therefore it's true": Effects of self-perceived objectivity on hiring discrimination. *Organizational Behavior and Human Decision Processes*, **104**, 207–23.
- van der Zee, K.I., Bakker, A.B., & Bakker, P. (2002). Why are structured interviews so rarely used in personnel selection? *Journal of Applied Psychology*, **87**, 176–84.
- van Knippenberg, A.V., Dijksterhuis, A., & Vermeulen, D. (1999). Judgement and memory of a criminal act: The effects of stereotypes and cognitive load. *European Journal of Social Psychology*, **29**, 191–201.
- Vorauer, J.D., Hunter, A.J., Main, K.J., & Roy, S.A. (2000). Meta-stereotype activation: Evidence from indirect measures for specific evaluative concerns experienced by members of dominant groups in intergroup interaction. *Journal of Personality and Social Psychology*, **78**, 690–707.
- Vorauer, J.D., Main, K.J., & O'Connell, G.B. (1998). How do individuals expect to be viewed by members of lower status groups? Content and implications of metastereotypes. *Journal of Personality and Social Psychology*, **75**, 917–37.
- Ware, L. (2007–2008). A comparative analysis of unconscious and institutional discrimination in the United States and Britain. *Georgia Journal of International and Compensation Law*, **36**, 89–138.
- Wegener, D.T., & Petty, R.E. (1995). Flexible correction processes in social judgment: The role of naïve theories in corrections for perceived bias. *Journal of Personality and Social Psychology*, **68**, 36–51.
- Wegner, D.M. (1994). Ironic processes of mental control. *Psychological Review*, **101**, 34–52.

- Wegner, D.M. (1997). When the antidote is the poison: Ironic mental control processes. *Psychological Science*, **8**, 148–50.
- Wenzlaff, R.M., & Wegner, D.M. (2000). Thought suppression. *Annual Review of Psychology*, **51**, 59–61.
- Wheeler, S.C., & Petty, R.E. (2001). The effects of stereotype activation on behavior: A review of possible mechanisms. *Psychological Bulletin*, **127**, 797–826.
- Wilson, T.D., Lindsey, S., & Schooler, T.Y. (2000). A model of dual attitudes. *Psychological Review*, **107**, 101–26.
- Wittenbrink, B., Judd, C.M., & Park, B. (2001). Spontaneous prejudice in context: Variability in automatically activated attitudes. *Journal of Personality and Social Psychology*, **81**, 815–27.
- Wittenbrink, B., & Schwarz, N. (Eds). (2007). *Implicit Measures of Attitudes*. New York, NY: Guilford Press.
- Wright, O.R. Jr. (1969). Summary of research on the selection interview since 1964. *Personnel Psychology*, **22**, 391–413.
- Word, C.O., Zanna, M.P., & Cooper, J. (1974). The nonverbal mediation of self-fulfilling prophecies in interracial interaction. *Journal of Experimental Social Psychology*, **10**, 109–20.
- Wyer, N.A. (2004) Not all stereotypic biases are created equal: Evidence for a stereotype-disconfirming bias. *Personality and Social Psychology Bulletin*, **30**, 706–20.
- Ziegert, J.C., & Hanges, P.J. (2005). Employment discrimination: The role of implicit attitudes, motivation, and a climate for racial bias. *Journal of Applied Psychology*, **90**, 553–62.